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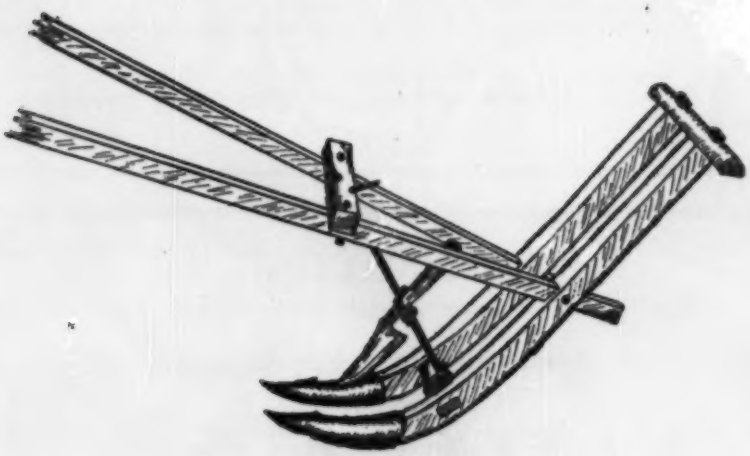

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AGRICULTURAL HISTORY

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AGRICULTURAL HISTORY

The Quarterly Journal of the Agricultural History Society

Agricultural History is designed as a medium for the publication of research and documents pertaining to the history of agriculture in all its phases and as a clearing-house for information of interest and value to workers in the field. Materials on the history of agriculture in all countries are included, and also materials on institutions, organizations, and sciences which have been factors in agricultural development. The Society is not responsible for the statements or opinions of contributors. Editorial communications and books for review should be sent to C. Clyde Jones, Editor, Room 214, David Kinley Hall, University of Illinois, Urbana, Illinois.

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Russian Agriculture in the Last 150 Years of Serfdom

JEROME BLUM

The reigns of Peter I (1689–1725) and of Alexander II (1855–1881) marked the opening and closing of an era of Russian history. Peter's reforms and innovations laid the foundation for the transformation of the tsardom of Muscovy into a modern empire. Russia became one of the great powers of Europe; her area and population grew mightily; domestic and foreign trade increased many times over; factory industry was introduced; and Russian culture and learning entered into the mainstream of European thought. Yet, because Peter's reforms did not extend to serfdom, Russia remained a "medival" society. Peter and the rulers who followed him on the throne intensified the bonds of serfdom, forced it upon millions who had been free men, and transformed others into the less onerous but still servile social category of state peasants. Serfdom became, more than it had ever before been, the basis of the entire social order. During the first half of the nineteenth century slight ameliorations were made in the status of some of these people. But not until 1861, in the reign of Alexander II, did Russia free her bondsmen. When that happened the old order, built as it was upon serfdom, disappeared and Russia entered upon a new stage in her troubled history.

During this era from Peter to Alexander the overwhelming majority of Russia's people were peasants who earned their livings from the soil and paid dues in cash, kind, and labor to their lords to whom the land belonged. On the eve of the emancipation only about 8 per cent of the empire's population of 74 millions lived in cities, and less than a million people were employed in factory industry.[1] Agriculture was far and away the chief industry of the country. The nation's economy was almost entirely dependent upon it. Yet during the 150 years from Peter to Alexander, when so many innovations were introduced into other sectors of national life, agriculture remained all but unchanged from what it had been for centuries.

The backward state of farming was recognized and freely commented upon by many competent observers among the landowning class and the bureaucracy of the era. In the instruction manuals drawn up by great proprietors in the first half of the eighteenth century for the guidance of their estate managers, concern was often expressed about small yields, soil exhaustion, and the inefficient methods of cultivation used by the peasants.[2] Around the middle of the century a number of writers, including some of the era's most knowledgeable men, discussed the shortcomings of the nation's agriculture.[3] In 1765 a group of noble landowners, most of whom held important government posts and were close to the throne, formed the Free Economic Society for the Encouragement of Agriculture and Household Management. In the Society's meetings, in the pages of its journal that began to appear in 1766, and in the essays submitted in the prize competitions it conducted, frequent expression was given to the dissatisfaction of landlords and government officials with the existing conditions of agricultural production. Other journals, too, that began to appear around this time, published articles on this theme.[4] In the nineteenth century the chorus swelled, with men like A. A. Shakhmatov, one of Russia's leading agriculturists, pointing out to his fellow landlords that the welfare of the empire depended upon the con-

[1] P. I. Liashchenko, *History of the National Economy of Russia* (New York, 1949), 273; K. A. Pazhitnov, "K voprosu o roli krepostnogo truda v doreformennoi promyshlennosti", *Istoricheskie Zapiski*, 7:236–237, 243–244 (1940).

[2] P. K. Alefirenko, "Russkaia obshchestvennaia mysl pervoi poloviny XVIII stoletiia o sel'skom khoziaistve," Ak. Nauk, Institut Istorii, *Materialy po istorii zemledeliia SSSR*, 1:528–529 (1952).

[3] I. Bak, "Vozniknovenie russkoi sel'skokhoziaistvennoi ekonomii," *Sotsialisticheskoi Sel'skoe Khoziaistvo*, no. 9, 1945, 53–62.

[4] K. V. Sivkov, "Voprosy sel'skogo khoziaistva v russkikh zhurnalakh poslednei treti XVIII v.," Ak. Nauk, Institut Istorii, *Materialy*, 1:553–560.

dition of its agriculture, and Count P. D. Kiselev, chief of the Ministry of State Domain, in reports to the tsar calling the sovereign's attention to the lagging economic development out on the land.[5]

There were a number of reasons, many if not all of them mentioned by contemporary observers and critics, that explained this backwardness. Surely one of the most important was the niggardliness of nature herself. The soils of the forest zone north of the River Oka, where until the nineteenth century most of Russia's people lived, were relatively infertile and much of the region was covered by great bogs. In the open steppes that lay to the south the soil was far more fertile, for this was the land of the chernozem—the black earth. But the rigors of Russia's continental climate reduced the growing season in even these more favored zones and inadequate rainfall nearly everywhere held back crop yields.

These disadvantages of soil and climate were aggravated by the attitude of the people who owned the land and the techniques of those who worked it. Most Russians, whether lords or peasants, seemed content with the traditional pattern of agricultural exploitation. Though there seems to have been some decline in landlord absenteeism in the last part of the eighteenth and in the nineteenth centuries, many proprietors, as in previous centuries, spent little or no time on their estates, either because the demands of government service kept them away or because they preferred urban life. The only interest most of these men had in their properties was in the revenues in cash and kind they drew from them.

As for the peasants, whether serfs on privately-owned land or half-free peasants who lived on state land, the techniques of tillage they employed were virtually unchanged from what they had been in the middle ages. Inadequate or no fertilizing, primitive tools, and all the other accoutrements of obsolescent farming combined to hold back productivity. The open field system, with its division of the arable land into small strips and parcels, offered serious obstacles to agricultural improvements. The strips themselves were only about 10 to 14 feet wide, so that cross plowing was impossible. A sizable amount of arable land was lost to cultivation because it had to be used for boundaries between the strips and for the access roads and paths to the many individual parcels. Communal tillage was the rule, everyone growing the same crops and performing the same farming operations at the same time. A well-nigh military precision was followed, with all the workers leaving the village and returning to it at the same times each day. Each peasant's holding was divided into strips scattered through the fields of the manor. Some of them were at a considerable distance from the village so that often much time was lost in going to and from the work site. In some places the peasants' strips lay as much as 15 to 20 versts from their homes, and in one extreme instance they were 70 versts away. (In this particular instance the peasants leased their land at a low rental.) In the Lower Volga provinces, where the villages often were large and lay far from some of their plowlands, sometimes the entire settlement with its cattle and implements camped out near the fields in spring for plowing and sowing, and in fall for harvesting.[6]

The handicaps of the open field system, and particularly its effects upon individual initiative, were found in all countries where this method of tillage was used. But in Russia its disadvantages were intensified by the practice of periodic redistribution of holdings that became especially widespread in the eighteenth and nineteenth centuries. The peasant was converted into the temporary occupant of the strips allotted him by his commune. He had little or no interest

[5] Cf. E. N. Kusheva, "Proekt uchrezhdeniia aktsionernogo 'Obshchestva Uluchsheniia Chastnogo Sel'skago Khoziaistva' 30-x godov xix v.," *Istoricheskii Arkhiv*, 7: 60 (1951); *Shornik Imperatorskago Russkago Istoricheskago Obshchestva*, 98: 489–490 (1896).

[6] M. Baranovich, *Materialy dlia geografii i statistiki Rossii sobrannye ofitserami General'nago Shtaba. Riazanskaia Gubernia* (St. Petersburg, 1860), 237–239; A. von Haxthausen, *Studien über die innern Zustände, das Volksleben und insbesondere die ländlichen Einrichtungen Russlands* (Hannover, Berlin, 1847–1852), 1: 157, 2: 10; A. von Buschen, "Die Freibauern Russlands," *Zeitschrift für die gesammte Staatswissenschaft*, 15: 232–233 (1859), and note; K. N. Shchepetov, *Krepostnoe pravo v votchinakh Sheremetevykh* (Moscow, 1947), 57; N. M. Druzhinin, *Gosudarstvennye krest'iane i reforma P. D. Kiseleva* (Moscow, Leningrad, 1946), I: 325.

The verst was equal to two-thirds of a mile.

in increasing their fertility because in all likelihood they would be assigned to some other household at the next repartition. Land that needed improvement, such as draining, before it could be planted, and fields that gave only mediocre yields, often were left empty because no one was willing to expend the effort involved in reclaiming or improving them when the rewards of his labor were likely to go to someone else. Meadows frequently were divided anew each year just before haying, so no one bothered to drain or clear them. Consequently, their productivity was much less than it might have been.[7]

Finally, the development of Russian agriculture was immeasurably retarded by the fantastically bad condition of the empire's communications system. Roads were few and usually were unsurfaced and undrained, so that in rainy weather they were often impassable. The land carriage of most goods had to wait upon the coming of winter when the snow cover allowed transport by sled. But winter travel had its perils, too, and each year many succumbed to the cold and to storms, or lost their way in the unmarked and endless snow fields and perished. And if by unlucky chance the winter was mild, with only light snowfall, sled transport became difficult and gluts piled up out in the land, while townspeople suffered from shortages and high prices.[8] Many parts of the river network that laced the realm could not be navigated for a large part of the year because of ice in winter, floods in spring, and low water in the summer months. An even more serious drawback was that most of the streams flowed north and south, and so were of little or no use in the east-west flow of trade across the empire. Railroad and highway construction got under way in the first half of the nineteenth century, but Russia lagged far behind other nations in carrying through these badly needed improvements.

Because of these parlous conditions in transportation, farm goods often could get to the market only with difficulty and much expense, and sometimes were unable to get there at all. The problems of reaching the market and the risk of undisposable surpluses piling up in the village acted as a brake to any interest in improvements or in increasing output. Russian observers and foreign visitors alike stressed the need for more and better means of communication as the indispensable condition for agricultural progress.[9]

Low yields and frequent crop failures were the not-unexpected results of the many shortcomings of Russian agriculture. Incomplete data show there were at least 34 partial or general crop failures in the eighteenth century, and contemporary statisticians of the early part of the nineteenth century estimated that there was one total crop failure and two partial ones out of every ten years. Information on yields collected between 1759 and 1786, though imprecise, indicated that the chief cereals (rye, oats, barley and wheat) gave three to five times the seed. Data collected for 1802 showed that the average yields in the black earth for winter grains was around 4.4 times the seed and for spring cereals 3.3 to 1, while in the forest zone the comparable figures were 3.0 and 2.4.[10] These averages, however, conceal wide fluctuations both within each of these two regions and between them. Farmers in the richest parts of the chernozem in some years got eightfold returns on winter grains and sixfold on spring cereals. In unusually good years rye and wheat were reported to have returned as much as fourteen and sixteen times the seed, and millet yields were even higher.[11]

[7] P. von Köppen, *Statistische Reise in's Land der donischen Kosaken, durch die Gouvernements Tula, Orel und Woronesh in Jahre 1850* (St. Petersburg, 1852), 122–123; Baranovich, *Materialy*, 178, 239.

[8] R. Portal, "Manufactures et classes sociales en Russie au xviii[e] siècle," *Revue Historique*, 201:169 (1949); W. Tooke, *View of the Russian Empire during the reign of Catherine II, and to the close of the eighteenth century* (London, 1799), 1:27–28.

[9] A. von Haxthausen, *Die ländliche Verfassung Russlands* (Leipzig, 1866), 4; Haxthausen, *Studien*, 2:104; Count P. D. Kiselev to Tsar Nicholas I. *Shornik Imperatorskago Russkago Istoricheskago Obschestva*, 98:490 (1896); A. Jourdier, *Des forces productives, destructives et inproductives de la Russie* (Paris, 1860), 36–37; X. Hommaire de Hell, *Les steppes de la mer Caspienne, le Caucase, la Crimée et la Russia méridionale* (Paris, Strasbourg, 1843–1845), 1:46–47; J. Kulischer, "Die Leibeigenschaft in Russland und die Agrarverfassung Preussens im 18ten Jahrhundert," *Jahrbuch für Nationalökonomie und Statistik*, 127:61 (1932).

[10] P. I. Liashchenko, "Krepostnoe sel'skoe khoziaistvo Rossii v XVIII veke," *Istoricheskie Zapiski*, 15:116–117 (1945); P. I. Liashchenko, *Ocherki agrarnoi evoliutsii Rossii* (Leningrad, 1925), 1:120.

[11] M. Domontovich, *Materialy dliia geografii i statistika Rossii sobrannye ofitserami General'nago Shtaba. Chernigov Gubernüia* (St. Petersburg, 1865), 183; L. de Tegoborski, *Études sur les forces productives de la Russie* (Paris, 1852-1855), 1:39; Druzhinin, *Gosudarstvennye krest'iane*, 1:401, 409, 417.

Estimates made for the first half of the nineteenth century show that yields were just about the same as they had been in the preceding century, and indeed as far back as the sixteenth century and probably even earlier.[12] The yields for European Russia averaged out at about 3.5 to 1 for both winter and spring cereals.[13] Comparative data collected around the middle of the century revealed that Russian yields were lower than those of any other European nation. The average in Belgium and Holland was 14 hectolitres per hectare; in Saxony, Great Britain, Württemberg, and Baden it was 13.2 hectolitres; in Austria, 10.3; France, 9.3; Sweden, 9.3; Prussia, 9.1; Italy, 9.0; Norway, 7.6; Spain, 6.2; Greece, 6.1; and in Russia it was 6 hectolitres per hectare.[14]

Despite the fact that yield per unit remained the same, the total output of Russian agriculture climbed steadily during the eighteenth and nineteenth centuries. This, of course, was because of the great increase in the amount of land under cultivation. The remarkable rise in the empire's population from 13 millions in the early 1720's to 74 millions in 1858,[15] and to a far lesser degree the development of foreign markets, provided the stimuli for this expansion. Given the inefficient techniques of cultivation then dominant, the only way to meet the heightened demands for foodstuffs was to take more land under the plow. In the older regions of settlement north of the Oka, just about all the land suitable for crops had been put into use by 1800. After that date the area of plowland there remained relatively stable. But the population kept on going up. As a result, the peasantry could no longer support itself from the land alone. Data for 1783-1784 for the province of Tver, directly northwest of Moscow, showed that the peasants' cash income from agriculture covered only 40–50 per cent of the money they needed to meet expenses.[16] A government survey made in Pskov in the 1830s revealed that over 70 per cent of the peasant families on state-owned land in that province did not have enough arable land and cattle to meet their minimum requirements.[17] The only way these people and most of the other peasants who lived in the non-black earth provinces could make ends meet was to engage in cottage handicraft production or to leave their villages to find work elsewhere in trade and industry.

In the black earth zones, however, where the land was fertile and in many places sparsely settled, there was a large expansion in the area of plowland. During the eighteenth century the center of agricultural production had completed its shift begun in the previous century from the Muscovite center into the steppelands. By the turn of the century more than half of European Russia's sowed area lay in the black earth provinces, although the total area of these provinces was only 60 per cent of that of the non-black earth provinces. During the nineteenth century the arable zone there continued to grow and further outstrip the older regions.[18] The spread of settled tillage into New Russia and along the middle and lower Volga accounted for most of the increase in chernozem production. At the end of the eighteenth century those frontier regions had been very thinly populated and had been used primarily for cattle raising. During the next half-century a great wave of colonists moved into them from the center, so that by 1860 several of the provinces there had a population density as heavy as that of some prov-

[12] For yields in earlier centuries see Liashchenko, *Ocherki*, 1: 87 n.; P. N. Miliukov, *Ocherki po istorii russkoi kul'tury* (2nd ed., St. Petersburg, 1896-1903), 1: 73-74 n.; K. N. Shchepetov, "Sel'skoe khoziaistvo v votchinakh Iosifo-Volokolamskogo Monastyria v kontse XVI veka," *Istoricheskie Zapiski*, 18: 107-108 (1946).

The Rothamsted experiments on the continuous cropping of wheat "seem to indicate that the tendency of an exhausting system of cultivation . . . is to reduce the crop to a minimum in a few decades, but that this minimum, once it is reached, can be maintained almost indefinitely." R. Lennard, "The Alleged Exhaustion of Soil in Medieval England," *Economic Journal*, 32: 27 (1922).

[13] P. Storch, "Der Bauernstand in Russland in geschichtlicher, statistischer, staatsrechtlicher und landwirtschaftlicher Hinsicht," *Mittheilungen der kaiserlichen freien ökonomischen Gesellschaft zu St. Petersburg*, 1849, 86; Jourdier, *Des forces*, 145; Liashchenko, *History*, 324.

[14] Ministerstva Gosudarstvennykh Imuschchestv, *Ob'iasneniia k khoziaistvenno-statisticheskomy atlasy Evropeiskoi Rossii*, I. Vil'son, ed. (4th ed., St. Petersburg, 1869), 115. Hereafter referred to as M.G.I.

[15] Liashchenko, *History*, 273.

[16] I. Bak, "K voprosu o genezise kapitalisticheskogo uklada v krepostnom khoziaistve Rossii," *Voprosy Istorii*, 1948, no. 4, 74.

[17] Druzhinin, *Gosudarstvennye krest'iane*, 1: 385-387.

[18] P. I. Liashchenko, *Istoriia narodnogo khoziaistva SSSR* (Moscow, 1947-1948), 1: 520.

inces in the oldest parts of the empire, and in a couple of provinces (Simbirsk and Saratov) it was considerably heavier.[19] At the outset of the nineteenth century the sowed area in New Russia was estimated to have been 800,00 desiatins, and in four Volga provinces 1,000,000 desiatins. In the 1860s these figures had risen to 6 million and 4.6 million desiatins, respectively.[20]

An estimated 96 per cent of the arable land in chernozem and non-chernozem alike was planted in cereals. In the eighteenth century rye was apparently by far the single most important crop. Wheat was paramount in only a few regions and in many places it trailed behind rye, barley and oats in order of importance.[21] By the middle of the nineteenth century, however, rye remained the dominant crop only in the north and center down to 50–52 degrees of latitude. South of this line, wheat, and particularly spring wheat, had become the chief crop. In the rye-growing zone oats were the chief spring grain, taking up as much as three-fourths of all the arable land devoted to spring cereals. Much less oats were grown in the southern provinces. Buckwheat and millet were other important spring grains, the latter being particularly popular in the black earth. In the southwest, and chiefly in Bessarabia (annexed by Russia in 1812), Indian corn was a major crop.[22]

Precise figures on the size of the grain harvests in the pre-1861 era are not available. In 1873, however, an official commission published the following estimates for European Russia:[23]

Years	Average annual harvest (millions of chetverts)
1800-1813	155.0
1834-1840	179.0
1840-1847	209.7
1857-1863	220.0

Because of the vast area devoted to cereals, Russia produced more grain per capita than did any other European land even though the yield per unit of arable land was the lowest in Europe. A mid-century estimate placed the empire's output at 9 hectolitres per capita; Sweden was next with 6.6 hectolitres per capita; then came France with 6.3, Prussia with 6.2, Austria, 5.7, Great Britain, 4.9, Belgium, 4.7 and Italy, 4.[24]

Both contemporary and later observers sometimes claimed that despite the low level of productivity Russia suffered from a chronic overproduction of grain during the first half of the nineteenth century. The inadequacy of the data made it impossible for these writers to calculate the amount of the surplus but their estimates ran as high as 10 per cent of the harvest. They claimed that this constant surplus was unmarketable and was extremely damaging to the economy, depressing prices, acting as a deterrent to the introduction of better farming methods, and contributing significantly in the creation of a "general crisis in serf agriculture" in the mid-nineteenth century. This widely-held view has been seriously questioned by P. I. Popov. Popov argued that, far from suffering from chronic overproduction in the period from 1840 to 1860, Russia did not produce enough grain to meet the needs of her people. He pointed out that the estimates of grain production in these (and earlier) decades were based upon theoretical appraisals of the

[19] Cf. Ministerstva Vnutrennikh Del, Tsentral'nyi statisticheskii komitet, *Statisticheskaia tablitsy rossiiskoi imperii. Nalichnoe naselenie imperii za 1858 god* (St. Petersburg, 1863), 158-174.

[20] Liashchenko, *Istoriia*, 1:519; Liashchenko, "Krepostnoe sel'skoe khoziaistvo," 99, 106-107.

The desiatin was equal to 2.7 acres or 1.09 hectares.

[21] Liashchenko, *History*, 324; Liashchenko, "Krepostnoe sel'skoe khoziaistvo," 114-115.

[22] M.G.I., 116-120.

[23] P. A. Khromov, *Ekonomicheskoe razvitie Rossii v XIX-XX vekakh 1800-1917* (Moscow, 1950), 19. These figures are lower than other estimates made at various times during the preceding half century. Thus, Androssov in 1813 estimated the annual crop at 189 million chetverts; Arsen'ev in 1818 set it at 200 million chetverts (*ibid.*, 18-19); Köppen, on the basis of admittedly incomplete data estimated it at 186 million chetverts in the mid-thirties (P. von Köppen, "Über den Kornbedarf Russlands," *Memoires de l'Academie Impériale des Sciences de St. Petersbourg*, VIme Series, Sciences Politique, Histoire, Philologie, 5:526–527 (1845); Tegoborski's estimate was 260 million chetverts in the latter 1840's (Tegoborski, *Études*, 1:205); and Vil'on of the Ministry of State Domain estimated 265 million chetverts for the early '60's (M.G.I., 112).

The chetvert was equal to 2.098 hectolitres or 5.95 U.S. bushels.

[24] M.G.I., 116. According to another computation, however, in 1851-60, Denmark was first in per capita output with 43 bushels, Rumania second with 23, and Russia third with 20 bushels. M. G. Mulhall, *The Dictionary of Statistics* (4th ed., London, 1899), 7.

size of the average annual harvest. Actually, sharp fluctuations in output and partial crop failures, rather than a uniform output, were the rule. The surpluses produced in the good years did not represent overproduction but were needed to meet the deficiencies of the bad years, and were carefully stored away for that purpose. These reserves, when they could be accumulated, were vitally important because the shortcomings of the transportation system often made it prohibitively expensive to bring in foodstuffs.[25]

After cereals, flax and hemp were the most important crops. Flax was grown everywhere in Russia save in the extreme north, but by the mid-nineteenth century the chief regions of production were the Baltic, White Russia, and Central Industrial provinces, and along the shores of the Black and Azov Seas. Hemp culture centered in the provinces of Smolensk, Mogilev, Chernigov, and in the Central Agricultural zone.[26] These plants had been among the chief products of Russian agriculture for centuries, their fiber and oil-yielding seeds being of prime importance in meeting the domestic demand for textiles and fats. They had also long been major items in Russia's export list. In fact, up to the mid-1840s the value of hemp and flax exports exceeded that of grain.[27]

Little attention was paid to the commercial production of vegetables save near large cities where the peasants raised truck for sale in the nearby urban market. Peas, beans, and lentils were sometimes planted in the spring field in lieu of a grain, and peasants grew large quantities of cucumbers and cabbages in garden plots. An Englishman who traveled in northern Russia around 1790 wrote that in summer nearly every peasant he saw had "a bit of black bread in one hand, and a cucumber in the other." Both cucumbers and cabbages had the advantage of being able to be preserved in palatable form as pickles and sauerkraut, for which delicacies the Russians had a well-developed taste.[28]

Potatoes were an unimportant crop until the middle of the nineteenth century. In the eighteenth century they had been all but unknown except among the German colonists in the steppe, who had brought the tuber with them when they migrated from their homeland in the latter half of the century.[29] When the Westphalian Baron August von Haxthausen visited some of these colonies in 1843 he thought he was back home. "The design of the villages and all of the buildings," he enthused, "the gardens, their layout, the plants, the vegetables, and above everything else the potatoes, all is German."[30] The plant was also reported to have been grown in the latter eighteenth century in the far north in the province of Arkhangel, where not much else could be raised with any success. The chief barrier that stood in the way of the development of potato culture in Russia, as in other lands, was the prejudice of the peasants. With the obstinacy and unreasonableness that are supposedly traditional characteristics of their station, they resisted efforts of the government and of improving landlords to introduce the potato even when there was famine in the land and the peasants were actually starving.[31] The government had evinced an interest in promoting potato culture as early as 1765[32] but did not engage in a sustained effort until the serious crop failures of 1839 and 1840. Then the Ministry of State, only recently established to administer the vast lands owned by the state, initiated a "crash program" that combined compulsion and encouragement. The Ministry ordered potatoes planted on the common lands of all state-owned properties with the seed provided by the state. It published instruction manuals on the culture, storage, and uses of the potato for such products as starch and syrup, and it offered medals and cash awards to outstanding producers. In 1843 the Ministry announced that commons did not have to be planted with the tubers in

[25] L. Kritzman, P. Popov, Ia. Iakovlev, *Sel'skoe khoziaistvo na putiakh vosstanovleniia* (Moscow, 1925), 1-3, 5-15.

[26] M.G.I., 222-228, 261-263.

The Central Industrial provinces were Moscow, Tver, Iaroslav, Kostroma, Nizhegorod, Vladimir, Smolensk, and Kaluga. The Central Agricultural provinces were Orel, Tula, Riazan, Tambov, Voronezh, and Kursk.

[27] Khromov, *Ekonomicheskoe razvitie*, 97.

[28] A. Swinton, *Travels into Norway, Denmark, and Russia in the years 1788, 1789, 1790 and 1791* (London, 1792), 442–445; Tegoborski, *Études*, 2:98; M.G.I., 120.

[29] P. S. Pallas, *Voyages du Professeur Pallas*, transl. from German (Paris, 1794), 7:304.

[30] Haxthausen, *Studien*, 2:172.

[31] Tooke, *View*, 3:274-275; Tegoborski, *Études*, 2:104.

[32] Cf. *Polnoe Sobranie Zakonov Rossiiskoi Imperii*, 8: no. 12406 (31 May 1765).

those villages where the peasants produced one-eighth of a chetvert per adult male on their own holdings; and in 1844 the award of prizes was discontinued save in certain southern and eastern provinces where little progress had thus far been made in potato cultivation.[33]

These efforts had a remarkable effect not only among the peasants on state land but also among the serfs who lived on privately-owned estates. A report of the Ministry of State Domain to the Tsar in 1850 estimated that in 1837 a million chetverts of potatoes had been sown, with over a third of this amount planted by state peasants; and in 1850, 5.8 million chetverts were sown, of which only 1.6 million had been planted by state peasants.[34] Other contemporary reports confirm the introduction and large increase in potato production during the '40s and '50s.[35] By the early 1860s an estimated 6.4 million chetverts were sown, and the crop was calculated to be 23.9 million chetverts. The chief producing areas were the Baltic and Western provinces. Only small amounts were grown in the eastern half of European Russia and in New Russia.[36]

Russia did not escape the potato disease of the latter 1840s, but it seems to have had much less virulence there than it had in the lands of Central and Western Europe. The blight first appeared in the Baltic provinces and in the succeeding two years spread north and east into Russia proper. Yields and total production did not fall off seriously, however.[37]

Sugar beets were another innovation of the first half of the nineteenth century, but the area given over to them was small.[38] Forage crops were of very little importance, although enterprising landlords introduced some grasses in the nineteenth century.[39]

Everywhere in Russia the crops grew in open, unfenced fields that sprawled across the vast plains as far as the eye could see, overwhelming the observer with the monotony of their sameness. A French visitor wrote:

> The fields here have none of the life and variety that they often have in other lands. . . . There is hardly any of the juxtaposition of different crops that give so much animation to our Western countryside. It's as if everything is the same field stretching out to infinity, broken only now and then by vast fallows. Not a hamlet, not a house, not an isolated homestead. On the steppe as in the forest the Russian seems afraid to find himself alone in the immensity of his environment. Communal property . . . augments the default of nature; it deprives the Russian of those enclosures, of those capriciously shaped hedges, which are much of the charm of the villages of England and Normandy. Instead there is the mournful flatness, the dull boredom of the impersonal and collectivized countryside where the fields lie undivided in long, equal, and symmetrical strips.[40]

The three-field system remained the dominant method of cultivation in the old regions of settlement, as it long had been. But in the vast steppes that reached to the south and east, field grass husbandry was in general use until the end of the eighteenth century. This wasteful technique, in which a field was cropped continuously for several harvests and then left untilled for as much as seven years or more before being worked again,[41] was possible so long as these regions were thinly populated. As they filled up, field grass husbandry gave way steadily to the less wasteful—albeit still inefficient—three-field system. Often during the period of transition the two methods would be in simultaneous use on a single property. By the 1860s field grass husbandry remained predominant only in some of the steppe frontiers where population was still sparse and land still plentiful. Elsewhere the three-field system prevailed.[42]

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[33] Tegoborski, *Études*, 2:105; *Mittheilungen der kaiserlichen freien ökonomischen Gesellschaft zu St. Petersburg*, 1844, 261-263.

[34] *Sbornik Imperatorskago Russkago Istoricheskago Obshchestva*, 98:492 (1896).

[35] V. Mikhalevich, *Materialy dlia georgrafii i statistiki Rossii sobrannye ofitserami General'nago Shtaba. Voronezh Gubernüa* (St. Petersburg, 1862), 199; M. Poprotskii, *Materialy dlia georgrafii i statistiki Rossii sobrannye ofitserami General'nago Shtaba. Kaluzhskaia Gubernüa* (St. Petersburg, 1864), 459-460; Ia. Krzhivoblotskii, *Materialy dlia geografii i statistiki Rossii sobrannye ofitserami General'nago Shtaba. Kostroma Gubernüa* (St. Petersburg, 1861), 286, 303; Haxthausen, *Studien*, 1:159; cf. Druzhinin, *Gosudarstvennye krest'iane*, 1:381; K. V. Sivkov, *Ocherki po istorii krepostnogo khoziaistva i krest'ianskogo dvizheniia v Rossii v pervoi polovine XIX veka* (Moscow, 1951), 24-25.

[36] M.G.I., 112, 124.

[37] *Mittheilungen der kaiserluchen freien ökonomischen Gesellschaft*, 1847, 397-406; Tegoborski, *Études*, 2:108.

[38] Tegoborski, *Études*, 1:215; M.G.I., 293 ff.

[39] Tegoborski, *Études*, 2:1-2.

[40] A. Leroy-Beaulieu, *L'empire des tsars et les russes* (2nd ed., Paris, 1882-1883), 1:160.

[41] Cf. Haxthausen, *Studien*, 2:15, 164.

[42] M.G.I., 52-53, 56; Redaktsionny Kommissii, *Pervoe izdanie materialov* (St. Petersburg, 1859-1860), 14:9-10; Liashchenko, "Krepostnoe sel'skoe khoziaistvo," 109; Bak, "K voprosu," 73.

In the forested, thinly populated, and infertile northern provinces of Arkhangel, Olonets, and Vologda, and to a lesser extent in the neighboring provinces of Novgorod, Kostroma, Viatka, and Perm, primitive slash-burn tillage was frequently employed. The peasants in these regions drew their livings primarily from such pursuits as lumbering, fishing, hunting, and trapping, but they often took advantage of the short growing season to raise a crop in a forest clearing. Following a centuries-old technique, they felled the trees in spring and the following autumn chopped off the branches and hauled away the trunks in sledges. The next spring they set fire to the brush and debris that covered the clearing and allowed the ashes to remain. Then they sowed the area, often without plowing, covering the broadcast seed by raking or by dragging tree branches across the clearing. They grew cereals and flax mainly, and the ash-enriched soil reportedly gave good and sometimes spectacular yields. The field was used continuously for from two to eight years, depending upon its fertility. When it was exhausted it was allowed to go back to forest and other burned-out patches that had been prepared beforehand were sown.[43]

Besides these three chief methods of cultivation, a number of other tillage systems, usually variations of the three-field system, were employed locally and on a relatively small scale. Rotations designed to restore fertility by planting a crop rather than by fallowing were scarcely used at all. The technique had been introduced into the empire in the late eighteenth century, and a few progressive landlords tried it out on their estates.[44] But the apathy of most proprietors to agricultural improvement, and the resistance to change of the tradition-bound peasantry, operated against its general adoption. Furthermore, a capital expenditure was necessary to install the new system and the low price of grain persuaded many that such an outlay was not justified. It caught on only in the Baltic provinces, where from the 1830s it came into wide use. By the middle of the century it had begun to spread from these provinces into the neighboring Lithuanian provinces of Kovno, Vilna, and Grodno.[45]

Manuring had long been a standard practice in the non-black earth center. But with the existing level of cultivation, an insufficient amount of dung was available because not enough forage was raised to support the necessary amount of cattle. Contemporary agriculturists held that ideally one third of the arable land should be manured each year, and that one desiatin of meadow for each desiatin of plowland was required to produce appropriate amounts of fertilizer. Data from the mid-nineteenth century show that in the central non-black earth provinces the ratio was less than one-fourth of a desiatin of meadow to one desiatin of arable land. The peasants tried to stretch out the available manure by mixing it with straw. Other restorative materials such as marl, chalk, and pond mud seem to have been applied only rarely.[46] An additional barrier to proper fertilizing, apart from the inadequacy of the supply, was the already-mentioned disinclination of the peasant to expend time and effort in improving land that would go to someone else at the next communal repartition.

In the black earth, the fields with rare exception were never manured. In fact, many there seem to have believed that fertilizing was harmful to the already very fertile soil. The dung in these treeless regions, when it was not thrown away, was dried into bricks and used for fuel. When it was put on the fields, it was applied sparingly and infrequently.[47]

The agricultural implements used by the peasants, like the tillage systems, changed little if at all from what they had been for centuries, and there was remarkably little interest shown in the eighteenth and for most of the nineteenth centuries in adopting more efficient tools. The most important implement in all of the non-black earth and in most of the chernozem, too, was the ancient hook-plow, the *sokha*.[48] This light tool, made of

[43] Tooke, *View*, 3:248-249; M.G.I., 49; D. Mck. Wallace, *Russia* (New York, 1878), 114-115.

[44] Cf. Haxthausen, *Studien*, 1:273; 2:76, 85.

[45] M.G.I., 65-68.

[46] *Ibid.*, 44-45, 48; Tooke, *View*, 3:256, 259.

[47] M.G.I., 69; Haxthausen, *Studien*, 2:15; Köppen *Statistische Reise*, 47, 61, 122-123; Ministervo Gosudarstvennykh Imushchestv, *Statisticheskii obzor gosudarstvennykh imushchestv za 1858 god* (St. Petersburg, 1861), 4; Tooke, *View*, 3:264; Domontovich, *Materialy*, 182.

[48] Pallas, *Voyages*, 1:3-4; Tooke, *View*, 3:240-241; G. von Schulze-Gaevernitz, "Der Nationalismus in Russland und seine wirtschaftlichen Träger," *Preussische Jahrbücher*, 75:502 (1894).

wood save for its two iron shares, could be drawn by a small horse. Because of its weight and inefficient design, it could only cut a shallow furrow and could not turn over large clods nor thoroughly tear up weed roots. It was a poor tool at best, but it was particularly unsuited for working the heavy chernozem. Yet, it continued to be used because it was cheap and easy to make and, most important, because the usual peasant lacked the animals needed to pull a heavier and more efficient plow. A somewhat better implement called the *kosulia,* midway in design between a *sokha* and a true plow, was employed to a limited extent in the north and non-black earth center. Heavier that the *sokha,* but still able to be drawn by one horse, it cut deeper and was more effective in turning sod and breaking new land. In Little Russia (Kharkov, Poltava, Chernigov) the peasants used a heavy wheeled plow called the *saban,* drawn by two or four horses, or four, six, and even eight oxen. In light soils, however, the Little Russians used the *sokha,* including a two-wheeled version of that implement. Heavier plows were also used in districts bordering Little Russia and in New Russia and along the Middle Volga, where, probably, they had been introduced by the German colonists.[49]

The harrow used in the forested zones of the center and north was often simply branches lashed together and dragged across the sown field. In some parts of the center and in the steppe, it was a wooden frame into which wooden pegs had been driven. Rollers were hardly ever used. The sickle was the favored tool for harvesting cereals in most of European Russia, though the scythe was used for mowing hay and in some areas for grain, too. In Little Russia and in the Baltic littoral, the scythe was in general use for all harvesting. Threshing was done with flails, though sometimes horses or people were used to tread out the grain.[50]

Improved implements and farm machinery were only beginning to be used by the middle of the nineteenth century. Sources of the '40s and '50s contain references to new implements, and especially threshing machines, in use on properties that belonged to wealthy landowners.[51] The establishment in 1831 under the aegis of the Moscow Agricultural Society of the firm of Butenop Brothers was a landmark in this development. Between 1833 and 1846 the value of their output of tools and machinery amounted to one million rubles, and included 1100 threshers, 6060 winnowing machines, 1600 plows, and 1200 harrows. Butenop Brothers had been the first farm tool factory in Russia, but by 1850, according to a government report, there were 19 such firms with a total annual volume of 150,000 rubles. This figure, of course, did not include the many small village shops engaged in this sort of production.[52]

Animal husbandry occupied a secondary role in agriculture in most of European Russia. It was generally conducted in an inefficient manner, partly because of the forage shortage that resulted from the prevailing modes of cultivation, and partly because of the lack of interest of both proprietors and peasants. No attention was paid to selective breeding, the animals were underfed and were given little care. As soon as the weather permitted, they were turned out to fend for themselves in the common pastures and in the stubble fields. In winter they were cooped up in ill-kept barns and fed meager rations that often were just straw. These practices produced weak and scrawny creatures who were easy victims to the frequent epizootics that swept through the land. An English traveler in the latter eighteenth century wrote that at the end of winter the cattle sometimes were too weak to rise without aid, and a hundred years later another observant Britisher made the same comment. There were a few

[49] Tooke, *View,* 3: 240-243, 263; *Mittheilungen der kaiserlichen freien ökonomischen gesellschaft,* 1846, 109, 110; 1849, 65, 146; 1852, 15, 461; Haxthausen, *Studien,* 2: 15, 23, 154; Domontovich, *Materialy,* 179; Druzhinin, *Gosudarstvennye krest'iane,* 401, 417; Liashchenko, "Krepostnoe sel'skoe khoziaistvo," 110.

[50] Pallas, *Voyages,* 1: 4, 17; Haxthausen, *Studien,* 1: 231, 247, 274, 282, 484; 2: 6, 25, 155; Tooke, *View,* 3: 244-245, 256; J. G. Georgi, *Geographisch-physikalische und naturhistorische Beschreibung des Russischen Reiches* (Königsberg, 1797-1802), 2: 187 (pt. 1); F. C. Weber, *Das veränderte Russland* (Frankfurt, Leipzig, 1738-1740), 3: 120; Baranovich, *Materialy,* 183; Alefirenko, "Russkaia obshchestvennaia mysl," 531.

[51] Domontovich, *Materialy,* 181; Baranovich, *Materialy,* 183; Haxthausen, *Studien* 1: 107; Sivkov, *Ocherki,* 93-94.

[52] *Sbornik Imperatorskago Russkago Istoricheskago Obshchestva,* 98: 491-492 (1896); P. Struve, *Krepostnoe khoziaistvo* (Moscow, 1913), 75-76.

areas in the Don steppes, in Little Russia, and in Archangel, where more attention was paid to stock raising and good animals were produced. The *kholmogor* cattle, developed in Archangel, were the best native stock. The breed originated when Peter I brought in Dutch bulls to cross with native cows, and had been maintained by subsequent importations of Dutch animals. In other parts of the empire, a corporal's guard of improving landlords brought in blooded animals from abroad to build up their herds.[53]

The great exception to the general disinterest in animal husbandry was sheep raising. The native animals, of which there were a large number, were small creatures and bore coarse wool. Efforts made by the government in the eighteenth century to improve the breed by importing blooded stock from England and Silesia had little effect. Then at the beginning of the nineteenth century, the government succeeded in establishing merino sheep raising as a major industry by offering vast stretches of empty land, and sometimes loans, to persons raising merinos. The land became the hereditary property of the grantee if he met certain conditions. A number of those who took advantage of these offers were foreigners who had gained experience in merino breeding in their homelands and were attracted to Russia by the lures held out by the government. A Spaniard named Rouvier was given 30,000 desiatins of land in the Crimea and a loan of 100,000 paper rubles to build up a herd of 100,000 merinos and train 100 students in sheep farming. A German named Müller received 130,000 desiatins on condition that in three years he was to have a flock of 30,000 sheep, a third of them pure merinos and the rest of mixed blood. These men, and other foreigners with whom similar arrangements were made, became the pioneers in merino production in the empire. They did their work well, for by 1846 over 7.5 millions of the estimated 41.6 million sheep in European Russia were merinos. Despite a falling price for the fine wool, the merino flocks continued to grow so that by the early 1860s the number of merinos had risen by over 50 per cent to 11.6 millions. At that time 61 per cent of the merinos were in the four provinces of New Russia where the industry had centered from the beginning; 20 per cent were in the provinces of Little Russia and the southwest; 13 per cent were in the Great Russian provinces, and chiefly in those of the southeast; and 6 per cent were in the western and Baltic provinces.

Save for some herds owned by German colonists, the merinos belonged almost exclusively to members of the landowning class. Some of these men owned huge numbers of the animals. In the Crimea flocks of 25,000 were not unusual and at least one owner, Falz-Fein by name, owned 400,000. The flocks belonging to the peasants were of the inferior native race except in the Crimea where peasants owned better sheep, some having several hundred head in the early '60s.[54]

[53] Tooke, *View*, 3:181-188; Wallace, *Russia*, 96; M.G.I., 387, 388, 392, 393-394.

[54] M.G.I., 399-406; Tooke, *View*, 3:194-200; Tegoborski, *Études*, 1:485.

PLOWING WITH ELEPHANTS

It is stated that in Ceylon elephants are employed in plowing new grounds for the cultivation of coffee, pepper, etc. One of these animals when well trained, it is said, will do the work of 20 oxen; consequently more labor is performed in a given time, and the period is hastened for putting in the crops. The price of an elephant in Ceylon varies from $50 to $75.

The Genesee Farmer (1848)

*The Genesis of an Agricultural Experiment Station**

VERNON CARSTENSEN

In many ways the agricultural experiment stations, established during the 1870's and the 1880's, generally in connection with land grant colleges, represent an important although unsure step taken to bring science to the service of our society in an organized way at public expense. The experimental stations not only were to have a profound influence upon agriculture but they also provided an example which was to help shape the pattern of industrial and other publicly supported research agencies. This paper is concerned with tracing some of the steps that led to the establishment of an agricultural experimental station in Wisconsin and with indicating some of the hopes and expectations of those who contributed to that end.

On the evening of September 10, 1883 the Farm Committee of the Board of Regents of the University of Wisconsin met with the three members of what was then the department of agriculture to make plans for the work of the agricultural experimental station that had been provided for by the state legislature some five months earlier. Hiram Smith, chairman of the Regents' Committee, reported that it was agreed that the experimental station would "be devoted mainly to experimental work in the several agricultural industries pursued in the state: with the various kinds of grain, grass, roots, fruits, and other products, and with the several breeds of animals, with a view to determining their capabilities or defects, in the production of milk, butter, cheese, meat and wool. Also to make extensive experiments with various kinds of feed in their production, preservation, mixture, and manner of feeding, in order to produce the best results in dairy products, wool, meat, or in growth of animals." Experiments would also be conducted with grade animals, with land drainage, and almost as an afterthought the committee promised that students would be welcomed in the department if they came.[1] Thus was the future charted for the newly founded station which opened officially on October 1, 1883.

For the moment at least the creation of the experimental station represented only another in the already long list of attempts to find a way of bringing the lessons of science to the improvement of farming. By 1883 a number of other states had taken similar steps. A. C. True, in one of the first of his many essays on the experimental stations, pointed out that as early as 1873 representatives of the agricultural colleges, deeply impressed by developments in Germany and France, had approved the idea of experimental stations. Two years later in Connecticut, the legislature appropriated funds for the establishment of such a station. In the ensuing years California, North Carolina, New York took similar steps and in 1883 delegates of the agricultural colleges endorsed a proposition to ask for federal funds to support such stations in connection with all of the agricultural colleges. By 1886, on the eve of the passage of the Hatch Act which would provide such funds, twelve states had already established experimental stations and a large number reported that they were carrying on the work without formal organization.[2] By the end of the century there were 56 experimental stations in the United States employing a total of 678 persons.[3]

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* This paper was presented as the presidential address before the Agricultural History Society in Denver, April 24, 1959.

[1] Reports to the Regents, B: 429-430 (Jan. 15, 1884). This and other Regents' MSS records cited below are located in the University of Wisconsin Archives.

[2] A. C. True, "Brief Account of the Experiment Station Movement in the United States," 73-77, in U. S. Department of Agriculture, *Experiment Stations Bulletin No. 1* (Washington, 1889). True presents a much fuller and slightly different picture in *A History of Agricultural Experimentation and Research in the United States 1607-1925* (U. S. Department of Agriculture, Miscellaneous Publication No. 251, Washington, July 1937), 82-118. See also Earle D. Ross, *Democracy's College, The Land-Grant Movement in the Formative State* (Ames, 1942), 136 ff.

[3] A. C. True and V. A. Clark, *The Agricultural Experiment Stations in the United States* (U. S. Department of Agriculture, Office of Experiment Stations, Bulletin No. 80, Washington, 1900), 43.

Obviously this was a movement that quickly found widespread support.

Behind this dramatic development lay a long period of groping. For more than a century the notion had been propounded again and again—from lecture platforms, editorial offices and even pulpits—that the farmer not only could but should improve his craft; that he could and should become more productive. Thus, for example, the Massachusetts Agricultural Society, in its petition to the General Court in 1792 asking for corporate powers, underscored the need for an organization that would itself make experiments aimed at improving agriculture and would invite others to do so. Moreover, the petitioners claimed that they had funds with which to reward "men of enterprise who have, by their inquiries, made useful discoveries and communicated them to the public."[4] Similarly, the Albemarle Agricultural Society, as conceived by Thomas Jefferson, proposed to obtain

> A succinct report of the different practices of Husbandry in the district inhabited by the members . . . including the bad as well as the good. . . . It is believed that a judicious execution of this article alone might nearly supercede [sic] every other duty of the society, inasmuch as it would present every good practice which has occurred [sic] to the mind of any cultivator of the state for imitation and every bad one for avoidance; and the choicest processes culled from every farm would compose a course probably near perfection.[5]

This idea lay at the base not only of the agricultural societies and the 19th century farmers' clubs, but it provided the justification for many other activities: the organization of agricultural fairs, the launching of farm journals, the creation of state and federal departments of agriculture, and the many experiments with agricultural education. In large measure this faith provided the basis for the Morrill Act of 1862. Editors, educators, politicians and self appointed farm spokesmen never tired of reminding each other and the public that improvement was the motto of the age, that agricultural progress was both necessary and inevitable.

The men who came into the new lands west of the mountains brought these ideas with them. Thus the Wisconsin State Agricultural Society, organized in 1849, was dedicated to the "dissemination of all useful knowledge scientifically and practically applied to the art of agriculture and the best mode and means of promoting farming and all industrial pursuits."[6] The *Wisconsin Farmer and Northwestern Cultivator*, launched the same year in Racine, sought a similar end and urged that the newly established state University organize a department of agriculture.[7] John Hiram Lathrop, the first chancellor of the University, as early as 1851 proposed that the University take steps to provide agricultural education. The proposal received the approval of the Board of Regents and mild support from the newspapers, but little more was done than to organize a few lectures on agricultural chemistry. No one seemed to know what to do or for how to do it.

The Morrill Act was passed in 1862, but four years passed before the Wisconsin legislature decided to assign the lands and responsibility for creating a college of agriculture and mechanic arts to the University. The University Regents then created a professorship of agriculture and set about to find a man to fill the chair, but they showed little enthusiasm. A special committee reported in 1866 that some people had no confidence in agricultural and industrial colleges and that some "young men of our cities and villages entertain notions as antiquated as European superstitions and quite as hurtful concerning a wide imaginary line between education and labor."[8] After a two year search the Regents appointed W. W. Daniells, a graduate of Michigan State College, as professor of agriculture and analytical chemistry and the

[4] A brief history of the Society is to be found in Massachusetts Society for Promoting Agriculture, *Centennial Year, 1792-1892* (Salem, 1892).

[5] "Minute Book of the Albemarle Agricultural Society," R. H. True, ed., in *Annual Report of the American Historical Association for the Year 1918* (2 vols., Washington, 1921), 1:265.

[6] *Wisconsin Farmer and Northwestern Cultivator* (Racine), 1:98-99 (May, 1949).

[7] *Ibid.*, 1:1-2 (Jan., 1849), 1:73-74, (April, 1849). See also Merle Curti and Vernon Carstensen, *The University of Wisconsin: A History* (2 vols., Madison, 1949), 1:459 ff.

[8] Reports to the Regents, B: 17 (July 18, 1866). See also W. H. Glover, *Farm and College: The College of Agriculture of the University of Wisconsin* (Madison, 1952), 28-31.

faculty adopted a course of study for students seeking to major in agriculture.

Daniells arrived in Wisconsin in 1868, at a time when many farmers were uneasy, even worried. In the years before the war farmers had raised wheat and they had prospered, but by the end of the 1850's many were in trouble. The chinch bug, declining soil fertility, competition from newer lands to the west and other factors had made wheat farming hazardous. In 1880 Hiram Smith warned farmers that "It would be folly to close our eyes to the fact that we are now menaced with an almost unlimited area of rich, cheap land that can pour productions into our market far below the cost of productions consistent with the price of land in Wisconsin. . . . " He also reminded them that "Just now Wisconsin farmers have a protection in what we please to call railroad extortions, in freight from the far west." [9]

In their speeches at annual meetings of the Agricultural and Horticultural Societies, the Dairymen's Association, and the Grange, and in the discussions that followed the speeches, the farmers showed their uncertainty, unhappiness, even bewilderment. Even when they produced bountiful crops they did not share in the general prosperity. They lamented the declining fertility of their land, low prices, the uncertainty of crops and weather, high freight rates and excessive interest charges. Their sons were being drawn into the bustling cities and this saddened or enraged them as the case might be. Many proposed schemes to improve their lot and in the wide spectrum of these proposals the hope continued to be expressed again and again that education and the application of science to farming would offer a sure route to more successful farming.

The University Regents were well aware of these unformulated yet insistent hopes, but they too were uncertain as to how to translate them into a specific program. Daniells meanwhile had begun to clear land for an experimental farm. He planted a vineyard and an orchard and provided work for a large number of students. He got little guidance from the Farm Committee of the Regents and was himself unsure of what should be done.[10] He asked the Regents for money to purchase farm machines and books and the Regents provided some books. But there were no students to take the course in agriculture so the president found other tasks for Daniells. By the end of his second year he was teaching courses in chemistry, practical agriculture and meteorology to the male students and zoology, geology and natural philosophy to the girls enrolled in the female college. In his spare time he could conduct experiments on the farm if he could think of any.[11] He began to show signs of exasperation. In 1871 he wrote to the Board:

> That I may work more intelligently in carrying out the wishes of the Regents in my connection with the experimental farm, I would ask that I may be instructed in regard to their views of the object of the farm, and the policy which they wish pursued in reaching the desired ends. I ask this particularly at this time because I have felt during the past year that I did not fully understand the plans and aims of the Board.[12]

The Regents directed Daniells to prepare plans for experiments to submit for their approval but at the same time directed that the agricultural college fund be charged with the cost of four additional professors whose real work was not in that department at all. The Regents also directed that Daniells attend the farmer conventions held during the winter months.[13] He did attend such conventions during the winter of 1871-72. The following June, upon examining his report, the Board directed that he hold institutes in any town in the state upon the written application of 25 farmers.[14] But nothing came of this flurry of interest.

Obviously the University authorities and the professor of agriculture were having as much trouble trying to learn what to do as the farmers and their spokesmen. In 1873 President Twombly admitted the failure of the agricultural department and weakly suggested that a series of public lectures on architecture, mechanical industries and prac-

[9] *Eighth Annual Report of the Wisconsin Dairymen's Association 1880* (Madison, 1880), 77.
[10] Reports to the Regents, B: 51-52 (June 23, 1868).
[11] *Ibid.*, 85 (June 22, 1869).
[12] *Ibid.*, 129 (January 17, 1871).
[13] *Ibid.*, 144 (January 17, 1871).
[14] The Regents even appropriated $100 to cover expenses. *Ibid.*, 164 (June 16, 1872).

tical farming be instituted and that "men of all ages should be admitted without fee or examination." [15] Two years later one of the Regents apparently reached a point very near despair. He justified the continuation of the experimental farm on the basis that it would afford nonagricultural students an opportunity to see what a farm was like.

In the early 1870's the rising Granger forces found a focus momentarily in their campaign to obtain legislation regulating the railroads but their partial victory quickly revealed to the thoughtful that there was no single, simple solution to their difficulties. A group of farmers under the leadership of men such as Hiram Smith, Stephen Faville, W. D. Hoard and others urged Wisconsin farmers to turn to dairying. Other devices were urged. Some thought a system of crop reporting would improve farming, others thought the spread of farmers' clubs to every township in the state would bring improvements.[16]

At the 1878 meeting of the State Agricultural Society a farmer asked whether the farmers "have our share in that institution of what was intended for us."[17] H. H. Robbins, a farmer from Platteville who had served in the legislature at the time the agricultural college was attached to the University, rose to complain that the farmers were getting nothing from the department of agriculture. "I am afraid that the farmers have been humbugged in this matter." [18] From the discussions that followed it is clear that the idea was taking form that the University department of agriculture was failing but that if properly directed it might be of some use. W. W. Fields proposed one step to that end. He offered a resolution asking the Governor to appoint one or more farmers to the Board of Regents and that a majority of the Regents' Farm Committee should be made up of practical farmers. After brief discussion this resolution was overwhelmingly approved.[19]

The resolution was carried to the Governor who promptly appointed to the Board of Regents Hiram Smith, a successful dairy farmer of Sheboygan and an active member of the Agricultural Society and the Dairymen's Association. The Board of Regents made him chairman of the farm committee. This did not satisfy everyone. H. H. Robbins returned to the convention of the Agricultural Society in 1879 to renew and expand his attack upon the University and the experimental farm. From Hiram Smith he drew a sharp response: "In regard to the ranting that has been uttered here concerning the expenses of the University, it is a new institution; it took long years to concoct any plan on which to commence operations. It is in its infancy now, and it will take long years to perfect it." [20] Having found the Governor and the Board of Regents responsive to their proposals, the Agricultural Society and other farmer organizations now made further demands. They asked that the Regents, in consultation with the presidents of the Agricultural and Horticultural Societies and the Dairymen's Association, arrange to hold conventions in different parts of the state "for the purpose of disseminating information of value to those engaged in the different branches of agriculture and horticulture and other useful branches." [21] The Regents approved and during the next winter six such conventions were held. Hiram Smith reported that at all places great interest was shown in obtaining a "more comprehensible and scientific knowledge of the various branches of agriculture." [22] In January 1880 Hiram Smith told the members of the Dairymen's Association that youth must be educated to compete successfully in farming in the future. "The time is rapidly approaching when Wisconsin agriculturists will stand in need of every help that education and

[15] *Ibid.*, 200 (January 21, 1873).

[16] For example at the 1878 meeting of the State Agricultural Society, R. D. Torrey made a speech on the industrial (i.e. agricultural) societies and claimed that Wisconsin then had a total of 81 such organizations. W. W. Field pointed out that two thirds of these organizations had come into existence during the past decade. This he declared reflected the mounting interest in agricultural and industrial education. The discussion then turned to the question of which organizations, the Grange, the agricultural societies, or the farmers' clubs, were most beneficial to the farmers. Not surprisingly each had its detractors, each its vigorous supporters. See Wisconsin State Agricultural Society, *Transactions, 1877-78*, 16: 93 ff.

[17] *Ibid.*, 169.

[18] *Ibid.*, 170.

[19] *Ibid.*, 171-172.

[20] Wisconsin State Agricultural Society, *Transactions, 1878-79*, 17: 293.

[21] *Ibid.*, 111-116, 233 ff, 278, for resolution as adopted.

[22] Reports to the Regents, B: 368 (June 22, 1880).

science can furnish, to enable them to hold their own." [23]

Although Regents and farm leaders were still groping, they were beginning, as Hiram Smith put it, to "concoct a plan on which to commence operations." Complaints from farmers combined with the fact that Professor Daniells was already overworked brought President Bascom to recommend in January 1880 the creation of a professorship of agriculture to be filled the following June. The duties of the professor, as outlined, reflected the experience of the last few years: the professor was "To give instruction in botany, to superintend farm experiments and improvements, to attend in the winter months local meetings of farmers, and to build up an agricultural department." [24] In accordance with this recommendation the Regents, at their June meeting, elected W. A. Henry to the new post.[25] Henry had served his apprenticeship as a teacher and administrator in the public schools of Indiana and Colorado and had recently taken an advanced degree in botany at Cornell University. That the Board chose wisely in appointing him and in charging him with attending farmer meetings during the winter was quickly evident. He never left any doubt that his interest lay primarily in the development of the agriculture department and he worked with great energy toward that end.

Shortly after his arrival in Wisconsin Henry went to the Governor and urged him to include in his annual message to the legislature of 1881 a request for funds to conduct investigations of amber cane for sugar making, and to experiment with silage. This the Governor did.[26] During the winter of 1880-81 Henry attended the state conventions of all the agricultural organizations and many of the regional and county meetings. Wherever he spoke he urged farmers to send their sons to the University department of agriculture to be educated, and asked the conventions to support the Governor's request for funds for experiments with amber cane and silage. He told the dairymen that the present generation of farmers had learned their lessons through adversity but that their sons were growing up without a comparable edution. "Either you send your sons out west or put them in school where they will become intelligent, and you will then have your recompense. Adversity has made most of our Wisconsin farmers. Let us make them in the future by education." [27] When he spoke before the convention of the Northwestern Wisconsin Agricultural and Mechanical Association at Green Bay he warned that farmers of the future must be educated. Unless this were done, he was reported as saying, "The farmer of the future is to be a peasant. He is to be a man that don't understand the first business principle scarcely." [28] He asked and obtained from the Grange, the State Agricultural Society and other organizations resolutions supporting the request for funds for experimentation.[29]

The action of the legislature reflected both the effectiveness of Henry's lobbying and its sympathy for such projects. The Assembly passed the bill 52 to 13; the Senate, after giving it only perfunctory consideration, voted 21 to 2 to adopt it.[30]

A year later the Governor was so impressed by what had been accomplished that he described the work in his message to the legislature and recommended funds to continue the investigation. The legislature promptly complied. But the farmers now wanted more and they were confident they could get it.

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[23] *Eighth Annual Report of the Wisconsin Dairymen's Association, 1880* (Madison, 1880), 77.

[24] Reports to the Regents, B: 364; (Jan. 20, 1880). Regents' Records, C: 34-43 (Jan. 20-21, 1880).

[25] Regents' Records, 3:345-346 (June 22, 1880).

[26] *Wisconsin Senate Journal, 1881*, 37.

[27] *Ninth Annual Report of the Wisconsin Dairymen's Association, 1881* (Madison, 1881), 100.

[28] Northern Wisconsin Agricultural and Mechanical Association, *Transactions, 1880-81*, 8:19.

[29] Henry appeared before the Grange Convention in Milwaukee on January 20 and the convention was quick to adopt a resolution asking the legislature to appropriate money for the purpose of "making experiments in the cultivation and manufacture of amber and other varieties of Sugar Cane and that a proper sum be appropriated . . . to carry out the resolution for building a Siloe." Wisconsin State Grange, *Proceedings of the Ninth Annual Meeting . . . , 1881*, 46. The silo was so new that the Grange secretary had some difficulty spelling it. When the resolution reached the Senate the spelling had changed to sillo. *Wisconsin Senate Journal, 1881*, 86. See Wisconsin State Agricultural Society, *Transactions 1880-81*, 19:347 ff; 19:377-378 for action of that body. The Regents had approved the proposition at the January meeting, 1881. Reports to the Regents, B:396 (January 18, 1881).

[30] *Wisconsin Assembly Journal, 1881*, 528; *Wisconsin Senate Journal, 1881*, 471.

It is clear that by 1882 the farm leaders who appeared before the conventions were persuaded that larger provision must be made for agricultural education and for research and experimentation. Larger and larger sums were demanded for the agricultural department of the University—often specifically for agricultural research. Sometimes coupled with this demand, sometimes separate from it, were proposals that a separate agricultural college be established. Many farmers now felt they had found the means of translating their aspirations into a specific program.

At the annual meeting in January 1882, S. C. Carr, Master of the State Grange, praised the experimental work that was being done under the direction of Professor Henry, but complained that money which should be used for agriculture was really being spent to support literary activities of the University.[31] The convention adopted a resolution urging the legislature to provide funds to put the experimental work on a permanent basis by creating an agricultural experiment station. The Grange based its request upon the principle that "state and not individual effort should conduct experiments that so materially advance the farming interests."[32] The next month, at the annual convention of the Agricultural Society, one farmer offered a resolution stating that the department of agriculture was "overshadowed and dwarfed in its usefulness" by its connection with the University and that a separate college of agriculture should be established "that will be untrammelled in its usefulness."[33] The Society was unwilling to approve this declaration but one member protested that Wisconsin farming was falling behind the rest of the nation. He urged a large increase in the appropriation for the department because money was needed for experimentation. "We do not want science floating in the skies," he told the convention; "we want to bring it down and hitch it to our plows."[34] Others spoke forcefully to support the same point. The convention voted to commend Professor Henry for his work and approved a resolution urging the Regents to increase the staff of the agricultural department by adding three professors.[35] They also asked that farmers be represented on the Board of Regents in proportion to their numbers and the amount of taxes they paid.[36]

The demands of the societies were carried directly to the Governor. In his message to the legislature in 1883, Jeremiah Rusk, who would later serve as U. S. Secretary of Agriculture, urged that provision be made for the establishment of an experiment station and that the sum of $6,000 be provided for this purpose.[37]

The Grange, the State Agricultural Society, the Dairymen's Association, and a number of farmers' clubs joined the Regents' farm committee in support of the Governor's recommendation. The Grange declared that "in order that the farmers may receive more light and that the bread of wisdom may be duly and scientifically prepared, and in sufficient quantity to satisfy the craving desire of the farmers for applied knowledge, that the experimental station be established" and further urged that the sum of $10,000 be provided.[38] W. D. Hoard led the dairymen to a discussion of the need for the experimental station with the question: "What shall we do to reduce buttermaking to a determinate position?"[39] The Regents' farm committee reported that "valuable and successful experiments" had already been made "from which absolute knowledge has been obtained that will be of great value to the agriculturists of the State."[40] Indeed so unanimous and persuasive was the sentiment that the bill passed the Assembly 58 to 9 and the Senate 20 to 6.[41]

[31] Wisconsin State Grange, *Proceedings of the Tenth Annual Meeting, 1882*, 32.

[32] *Ibid.*, 60.

[33] Wisconsin State Agricultural Society, *Transactions, 1881-82*, 20:286 ff. For resolution see 20:295.

[34] *Ibid.*, 297.

[35] *Ibid.*, 309.

[36] *Ibid.*, 335.

[37] *Wisconsin Senate Journal, 1883*, 16.

[38] Wisconsin State Grange, *Proceedings of the Eleventh Annual Meeting, 1882*, 74-77.

[39] *Eleventh Annual Report of the Wisconsin Dairymen's Association*, 47; see also *ibid.*, 105, 133.

[40] Reports to the Regents, B:419 (Jan. 16, 1883). For actions of other organizations see Wisconsin State Agricultural Society, *Transactions*, 1882-83 2:181-182; the *Western Farmer* (Madison), Jan. 20, Feb. 17 and March 3, 1883 records the interest of some of the farmers' clubs.

[41] *Wisconsin Assembly Journal, 1883*, 680; *Wisconsin Senate Journal, 1883*, 482.

At the June meeting of the Regents, President Bascom recommended the appointment of three professors to constitute the scientific staff of the new station: a professor of agriculture, a professor of botany and horticulture, and a professor of chemistry. This was just what the farmers had asked for. The purpose of the experiment station, he declared,

> shall be first, to institute such experiments in agriculture as are fitted to give the most immediate aid to the farmers of Wisconsin, and to extend by publication and by lecture the knowledge thus acquired; second to institute any experiments in agriculture which may promise to enlarge general science in this direction or to apply that science more directly to the peculiar conditions offered by the State of Wisconsin.[42]

It must be noticed that under this initial directive the experiment station was to devote itself to experiments that offered most immediate aid to Wisconsin farmers but it was provided further that the scientists were free to institute any experiments in agriculture which "may promise to enlarge general science." Thus, after years of agitation and after many false and halting steps, an agency was created on a permanent basis to make experiments and conduct research.

Perhaps it was not to be expected that the farmers would be satisfied. A University student who attended a convention in 1884 wrote his father that

> the air is redolent with howls about nobody earning an honest living but the farmer, and philippics against the University and give us an Agricultural College instead of a College of Letters, and horrible puns, and excrutiatingly bad grammar. . . . I notice that the Granger with all his howling is just as eager to get suck at the public teat as any other man if not more so.[43]

Nor was Professor Henry entirely happy. In his first report on the experiment station he complained about the "lawlessness prevailing hereabouts," that the farm was regarded by many persons as a public park and a "mere pleasure ground." Grain was trampled, labels misplaced or destroyed, grapes were stolen from the vineyard and fruit taken from the orchard even before it was ripe. He said, "We have spent some time in watching for marauders and have made some arrests but with conditions as they are it would require two watchmen day and night a part of the season to secure immunity from these depredations." Accordingly he reported his determination to experiment henceforth with livestock feeding and dairying: he could lock up the animals at night.[44]

Enthusiasm grew among farmers for a separate college, one that would be "untrammelled in its usefulness," and they came to the legislature in 1885 demanding it. But the Regents would not agree to having their domain divided. They moved quickly to overcome some of the objections by establishing a short course and the legislature adopted a bill to organize farmers institutes across the state. These actions, and related developments, helped to defeat the move for a separate college. Although the project was revived in 1887 it did not again pose a serious threat.[45]

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[42] Reports to the Regents, B:423 (June 19, 1883). The Regents promptly appointed W. A. Henry, professor of agriculture, Henry Armsby, professor of chemistry, and William Trelease, professor of botany (Records of the Regents, C:394). This action was noted with approval by the *Western Farmer*, June 23, 1883.

[43] William E. Aitchison to his father, Feb. 10, 1884, quoted in Curti and Carstensen, *The University of Wisconsin*, 1:470 fn.

[44] *Biennial Report of the Regents, 1883-84*, 42.

[45] In 1905 W. A. Henry, in a letter to President Van Hise, recalled that the move to establish a separate college of agriculture came largely because the Regents voted only $4,000 for the experiment station instead of the $6,000 initially requested by the Governor. As Henry remembered it, this act enraged the Governor and supporters of the agricultural department and led to a meeting of farmers in the autumn of 1884 when it was decided to urge the legislature to establish a college of agriculture separate from the University. (See Glover, *Farm and College*, 102 ff. This is true in a limited sense, but proposals to separate the agricultural department from the University had been widely and vigorously discussed at the state conventions of Grange and the Agricultural Society in 1882 and 1883. When Professor W. J. Beale of Michigan State appeared before the Agricultural Society in February 1883 he was questioned on the matter and expressed the view that agricultural colleges should not be connected with state universities. (*Western Farmer*, Feb. 17, 1883.) The matter was fully debated before the Society. Henry himself seemed to favor a separate institution but President of the University, John Bascom, opposed it with lucidity and vigor. See Wisconsin State Agricultural Society, *Transactions, 1882-83*, 21:181 ff., 21:190-192 for Henry's position; 21:195 ff. for Bascom's statements on the matter. A bill to establish a separate college of agriculture was introduced in 1883. The question continued to be agitated for another decade. In 1887, when the Hatch Act was adopted, Congressman Robert M. LaFollette went on record as opposing an amendment to the Act introduced by John C. Spooner, Senator from Wisconsin, which would permit state legislatures to re-

It is not possible here to trace the steps by which the experiment station became a highly effective state supported research agency. It is proper to note, however, that in 1883, when the farm committee of the Board of Regents met to mark out the future course of the station, the principal ingredients for success were already present: a small group of trained scientists, a charter directing attention to both applied and basic research, a farmer constituency anxious to bring science down out of the skies and hitch it to the plow, and funds to pursue these purposes. The men of the station and the Regents' Committee now had to learn how to define problems on which effective research could be conducted and devise ways of organizing so as to bring their respective talents and disciplines to bear. Farmer demands helped shape their course. Neither the short course nor the institutes seem to have pleased the professors but they did have the effect of bringing the scientists out of their laboratories to talk to farmers under circumstances that permitted the farmers to talk back. They did. The exchange was beneficial to all concerned. The professors in the station never had the opportunity to emulate their European colleagues who, to this day in some places, remain aloof and disdain the practical application of their science to the work-a-day world. Moreover the complexity of the problems posed often required collaboration by specialists from several disciplines.[46] What the stations needed early in their history was a dramatic demonstration of the wonderful usefulness of scientific research and experimentation. In Wisconsin such a demonstration was provided by Stephen M. Babcock in 1890 when he announced the invention of a simple, accurate test for the butter-fat content of milk. It was useful alike to breeders, producers and processors. The precise language of numbers could now be used in place of colorful but imprecise adjectives. W. D. Hoard once remarked that the Babcock test had more influence than the Bible in making dairymen honest.

Almost a century had passed since the Massachusetts Agricultural Society called for experiments aimed at making farming more efficient. With the creation of the experiment stations, an institution came into existence that offered the means of accomplishing this end in a systematic and sustained fashion. Some of the founders may have sought nothing more ambitious than to reduce butter-making to a determinate position, but from the nature of the problems encountered, station scientists had to be concerned with both basic and applied research to the enrichment of both. That the work of the stations has had an influence extending far beyond its profound effect upon the development of American agriculture is widely recognized. What needs also to be emphasized is that the stations, in their inception and development, reflect something of the values and the aspirations of the society that called them into being.

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assign federal funds if for some reason agricultural colleges were separated from state universities after the Hatch Act was adopted. LaFollette declared that he was unwilling to jeopardize passage of the Act by introducing additional amendments to remove this objectional feature, but nevertheless wanted the record to show that he opposed separation of agricultural colleges from their parent universities because the colleges needed the support of the allied science departments, the good laboratories and the superior teaching staffs possessed by established academic institutions. See R. M. LaFollette, "Remarks on Agricultural Experiment Stations," *Appendix to the Congressional Record*, 49th Congress, 2d Sess., 18: 146-147 (part 3). Although the move to establish a separate college of agriculture rested in part on hostility to continued University control, it must also be noticed that it reflected the aggressive confidence of the farm leaders in the value of the college.

[46] A. Hunter Dupree, *Science in the Federal Government: A History of Policies and Activities to 1940* (Cambridge, Mass. 1957) cites illustrations of successful research conducted by experts in several disciplines successfully collaborating. See for example *ibid.*, 165 ff. For limited reflection on this point see also Harry L. Russell, *Stephen Moulton Babcock, Man of Science* (Madison, 1943), 19-20.

Social Theory and the Pioneer *

ALLAN G. BOGUE

"The West at bottom," proclaimed Frederick Jackson Turner in 1896, "is a form of society rather than an area."[1] Throughout the frontier essays runs the suggestion also that "a modification of the original stock occurred" in the frontier setting.[2] But never did Turner develop the implications of the first quotation in detail, nor concern himself greatly with the alchemic process implied in the second. This paper is an exploratory and speculative one designed to investigate the possibility that the social structure of pioneer communities did influence the personalities of the residents. In treating such a subject the historian must look for aid in other disciplines. After a brief survey of Turner's social theory, I wish to discuss briefly the work of a number of behavioral scientists and, in the case of one pioneer region, illustrate the assistance that social science concepts may perhaps render in explaining how the westerner became a "new man." Let us assume for the time being that Turner and his followers were correct when they argued that the pioneer patterned his behavior in ways significantly different from those of the residents in older settlements. Three generations of the frontier school have unfortunately not proven this to be so beyond the shadow of a doubt.[3]

In describing the western personality, Turner varied his terminology somewhat. Perhaps the changes represented only the amplification and rewording of a literary stylist who offered his essays to a variety of audiences over a twenty-five year span, but he did, on various occasions, ascribe patterns of thought and action to the West as a region and to western democracy, as well as describing the "intellectual traits" of the pioneer, frontier "ideals" and western "beliefs." In his later essays he pictured frontiersmen who acted in accord with ideals or beliefs rather than possessing intellectual traits; but if this represented a change in Turner's system of psychology, the end result—the westerner's behavior—was still the same. Because of variations in Turner's phrasing, one must be arbitrary in compiling a manageable list[4] of those

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[1] Frederick Jackson Turner, *The Frontier in American History* (New York 1920 and 1947), 205. The quotation appears in "The Problem of the West," first published in the *Atlantic Monthly* in September, 1896.

[2] *Ibid.*, 139. The phrase "original stock" of course is one which no self-respecting social scientist would use today.

[3] Only incidentally am I concerned in this article with the "Turner controversy." For those who wish to survey this blood-drenched field of debate I would suggest they begin with the bibliographical notes of Ray A. Billington, *Westward Expansion: A History of the American Frontier* (New York, 1949), 760-763, and the same author's *The American Frontier* (American Historical Association, 1958), *passim*. The most recent extended summary is Gene M. Gressley, "The Turner Thesis—A Problem in Historiography," *Agricultural History*, 32: 227-249 (October, 1958). To me it seems much more important that America was a democracy than that Americans have enjoyed a unique kind of democracy.

[4] In preparing my list I analyzed the 13 essays included in *The Frontier in American History*, compiling a file of the qualities attributed to the pioneers by Turner and descriptions as well of the working of the frontier process. Generally accepted synonyms were grouped along with descriptive phrases or clauses that seemed to add up to the same thing. Readers, desiring a detailed and more critical analysis, should turn to the articles of Professor George W. Pierson, "The Frontier and Frontiersmen of Turner's Essays," *The Pennsylvania Magazine of History and Biography*, 64:449-478 (October, 1940), and "The Frontier and American Institutions: A Criticism of the Turner Theory," *New England Quarterly*, 15:224-255 (June, 1942), particularly the former. Here too will be found Mr. Pierson's summary of the way in which Turner saw the frontier altering the individual. Like Pierson, I too find some of the western characteristics hard to reconcile with each other. To be passionately egalitarian and "mobile, ascending" at the same time was no mean trick. On the other hand it is difficult to conciliate Pierson's seeming contention that Turner saw no contradiction between democracy and individualism ("The Frontier and Frontiersmen," 469), with Turner's passage, "They learned that between the ideal of individualism unrestrained by society, and the ideal of democracy, was an innate conflict." (*Frontier*, 203). Nor was it impossible as Pierson suggests for the individual to become more nationalistic and more sectional at the same time ("Frontier and

social qualities which revealed to him the impact of the West on the individual. Even then internal contradictions seem to threaten the elegance of any grouping; the great frontiersman did not cut his buckskin patterns with a razor.

Let us consider the western type briefly. Most important as far as Turner was concerned, the hero of the frontier essays was democratic and equalitarian in his approach to social and political problems. At the same time he was individualistic and highly competitive, qualities that were softened by the breadth of opportunity offered by the "free lands." The fact that the pioneer was responsive to leadership and possessed the power of "spontaneous association" when necessary also modified his individualism.[5] He was nationalistic in outlook and expansive in attitude, but at the same time cherished strong sectional loyalties. His militancy showed in hatred of the Indians, his urge to slash down the forests, and his instinctive antipathy to the non-resident capitalists who might thwart him. In both politics and religion, the frontiersman displayed an emotionalism which was also expressed in a kind of mystic communion with the wilderness.[6] He was inventive in facing his problems, quick to judge and act, and a born explorer. Intrinsic to the western personality as well were materialism, optimism, energy, coarseness, strength, acuteness and wastefulness. Finally, the pioneer was mobile in both a horizontal and a vertical, or social, sense.[7] Restless, he moved from frontier to frontier, but at the same time he was eager and able to rise in station. Obviously, the items in this catalogue vary in significance and even in level of analysis.

Apparently, Turner believed that "the original stock was modified" mainly by the opportunity given its members to amass and manage a competence from the free lands on the one hand and the challenges of the physical environment faced by the pioneers on the other.[8] He did not explore to any extent the possibility that the attraction of the West was selective, drawing a particular type of individual, although the idea was incorporated in portions of his work. Turner's direct description of what we may call frontier social structure was brief indeed, limited for the most part to comments that it was "atomic," "not complex, highly differentiated and organized . . . ," the frontier a region, where "every family was a self-sufficing unit."[9] Or again he might suggest that pioneer society was marked by lack of stratification.[10] But he did not elaborate upon the effects which such conditions might have on the individual, even though he did not disregard completely the possibility that being part of a new social fabric might alter the stuff woven into it originally.[11]

Frontiersmen," 460 and "Frontier and American Institutions," fn. 19). A third loyalty, that to the state was involved we must remember. There is implicit in such criticism also the assumption that the individual possesses a fixed quantity of any given emotion. Professor Jack H. Hexter facetiously dubbed this kind of "either, or" approach "The Theory of the Conservation of Historical Energy," in his paper "Factors in Modern History," delivered at the State University of Iowa, April 11, 1958. Finally in considering the frontier personality sketched by Turner we must remember that it is possible to pay fervent lip service to a value while ignoring it in practice. Indeed such behavior may provide a convenient and almost unconscious way of avoiding social responsibilities. If Turner's frontier could have withstood Pierson's dialectics it would have been a "never, never" land where only "economic man" and similar logical monsters could have dwelt.

[5] The quoted phrase appears in Turner, *Frontier*, 106.

[6] For instance the pioneer felt a "yearning beyond the sky line, where the strange roads go down," and the wilderness appealed to him as "a fair blank page on which to write a new chapter in the story of man's struggle for a higher type of society." Turner, *Frontier*, 270 and 261.

[7] More than 20 years ago, James C. Malin, one of the more cogent critics of the Turner hypothesis, dealt particularly with the problem of frontier mobility in a classic article, "The Turnover of Farm Population in Kansas," *Kansas Historical Quarterly*, 4: 339-372 (November, 1935). His findings raised a number of interesting questions about the frontier process, but other western historians have not produced comparable studies.

[8] We must remember that Turner appended a qualifying footnote to the famous list of characteristics of the American intellect in the frontier essay of 1893. Numbered 54 and keyed to "restless, nervous energy" it ran as follows: "Colonial travelers agree in remarking on the phlegmatic characteristics of the colonists. It has frequently been asked how such a people could have developed that strained nervous energy now characteristic of them. Compare Sumner, 'Alexander Hamilton,' 98, and Adams, 'History of the United States,' 1:60; 9: 240 and 241. The transition appears to become marked at the close of the War of 1812, a period when interest centered upon the development of the West, and the West was noted for restless energy. Grund, *'Americans,'* 2, ch. 1" (Turner, *Frontier*, 37).

[9] *Ibid.*, 211 and 153.

[10] *Ibid.*, 197.

[11] "Just because, perhaps, of the usual isolation of their lives, when they came together in associations whether of the camp meeting or of the political gathering, they felt the influence of a common emotion and enthusiasm." (*Ibid.*, 345).

The social scientists have produced little work dealing specifically with frontier society. When dealing incidentally with the influence of the frontier, they have generally taken the work of historians at face value rather than trying to explain the frontier process in terms of their own theory. The early social ecologists saw Turner's migratory waves and successive stages of settlement as an illustration of the concept of succession which they had themselves borrowed from the natural sciences.[12] The analogy was faulty at best and told historians only that the personnel and economic organization of communities tended to change over time—facts which some of them at least already knew. But there are more rewarding studies as well. One anthropologist examined the frontier in an effort to derive social theory. During the last generation, sociologists, anthropologists, geographers, and agricultural economists have used their analytical tools in describing the development of new communities. If the historian is hardy enough, he may turn as well to the theories of society evolved and evolving in the areas and subareas in which sociologists and anthropologists pursue their work.

Some may well ask whether insights derived from the social behavior of the twentieth century can be safely applied to earlier eras. Certainly there is a point beyond which generalizations on social behavior that are valid in one situation cannot safely be applied in another. Critics may particularly challenge the broader use of conclusions derived from experience in some of the new communities discussed below because the residents were screened by supervisory agencies, whereas the origins and past standing of settlers on the Turnerian frontiers could be highly diverse. Perhaps, however, the social patterns which emerge in a group recruited from individuals of like origin differ only in degree rather than kind from the patterns found in groups of individuals with diverse backgrounds. I would not argue that any frontier historian will find magic formulas in the work of the social scientists. Their research may, however, help us to slip the leash of tradition and consider the old frontier sources in a new dimension.

In the introduction to *Frontier Folkways*, James G. Leyburn promised an answer to the question: "What happens to men's social customs and social institutions when they go to a frontier?"[13] To Leyburn a frontier was "that region on the outer edge of settlement where pioneers are forced, for the sake of survival, to make new adjustments to a raw environment. It is a region, it is a process, it is even a state of mind."[14] His approach was to be a comparative one and on his pages appeared the French of the St. Lawrence Valley, the Portugese, the Spanish, the Dutch, New Zealanders, Australians, and Boers, as well as the Puritans of Massachusetts Bay and the American frontiersmen of the nineteenth century. For the most part, his sources were historical monographs or articles; his anthropology stemmed mainly from W. G. Sumner and A. G. Keller. Leyburn shared Turner's assumption that study of the frontier could reveal much about the development of civilizations generally, and in the end his monograph proved to be less an explanation of the frontier process than an effort to induce general social laws from a series of brief historical descriptions of life on a variety of frontiers.

Explicitly Leyburn stated a primary assumption: "Adaptation to environment is the primary law of life."[15] The motivation of the pioneers was clear to him; they were self-seeking, "like all normal men."[16] Herein, he thought, lay the explanation of American democracy. He accepted Turner's contention that democracy was born on the frontier, but discarded the historian's favorite definition, contending, "American democracy was not in essence a rule of the people, by the people, and for the people." Democracy emerged only incidentally, he argued,

> coming about simply because it was the most obvious way for the pioneer to get what he wanted, because the population of the frontier was steadily increasing, and because the frontiersman could make

[12] R. D. McKenzie, "Ecological Succession in the Puget Sound Region," American Sociological Society *Publications*, 23:60-80 (Chicago, 1929). Robert Park, "Succession, An Ecological Concept," *American Sociological Review*, 1:171-179 (April, 1936).

[13] James G. Leyburn, *Frontier Folkways* (New Haven, 1935), 1.

[14] *Ibid.*

[15] *Ibid.*

[16] *Ibid.*, 189.

> grim threats . . . In every frontier region of America . . . there was constant manipulation by land speculators, there was appeal to sordid gain, there was bickering among the pioneers. Yet democracy somehow flourished.[17]

Echoing Lewis Mumford, Leyburn challenged as myth the view that the Puritan settlers were "a band of brave adventurers, throwing off the bedraggled garments of Europe and starting life afresh in the wilderness!" Rather, they "tried to keep them even when they were in rags. They threw off only what were definitely injurious to their quest for self-maintenance."[18] Frontier religious manifestations were of great interest to Leyburn and he attributed religious emotionalism to the fact that the pioneers lived "in isolated little groups, with a minimum of interesting companionship, doing strenuous physical work, having practically no mental stimulus in their ordinary workaday life."[19] But the multiplication of sects on the frontier could be explained, he believed, by changed economic conditions.[20]

One final aspect of Leyburn's work requires mention—"the temporary frontier." To him the

> hundred-day journey from the Mississippi Valley to the Far West constituted a frontier society in the truest sense of the words. On many of these treks, there were men, women, and children; an economic order was established, religion practiced, marriages made. Each of the thousands of expeditions had its own variations, but in the main they followed a common pattern which gives distinct clues to the human mode of adjustment.[21]

Although he did not expand this idea, there is implicit in it a conception of frontier society as a complex of new groups evolving systems of social control within themselves.

In 1940, the rural sociologist, Charles Loomis, meticulously analyzed the development of social institutions on seven Farm Security Administration projects where the settlers were established on individual farms. He stated with approval the assumption that "man's basic nature requires participation in the life of an integrated group if he is to have a normal psychological existence. In such a group internal strife is at a minimum, a powerful 'we' feeling exists among its members, the morale is high, and all are loyal to common objectives entailing a spirit of self-sacrifice, if necessary."[22] Acquisition of such integration, Loomis implied, was a basic feature of community development. But on all of the resettlement projects, he found disintegrative as well as integrative processes at work. Problem families, migration from the projects, conflict between government administrators and settlers, cleavages between groups of different background or status: such were the disruptive influences.

A number of the findings of Loomis are suggestive for the student of the frontier process. The families that had been most mobile previous to settlement on the projects were found to be the most likely to leave. Families with children in school and with a record of participation in formal community activities in their former places of residence as well as in their new homes were most apt to stay. Movers tended to be somewhat less prosperous than those who stayed, but amount of education and the number of informal social contacts seemingly had little relation to the decision to move. But how and why did individuals decide to leave? A "common claim of disillusioned settlers was [that] their golden dreams . . . had not materialized."[23] Uncertainty stemming from changes in administrative policy stimulated rumors which ran speedily through the visiting groups on the projects. Movers, Loomis discovered, came to a much greater extent from the members of groups giving the rumors the most unfavorable interpretations. He concluded that the "decision to move or not to move was made in a social setting rather

[17] *Ibid.*, 189 and 191.
[18] *Ibid.*, 21.
[19] *Ibid.*, 197.
[20] *Ibid.*, 202.
[21] *Ibid.*, 223.
[22] Charles Loomis, *Social Relationships and Institutions in Seven New Rural Communities*, Farm Security Administration *Social Research Reports, 18* (Washington, 1940), 9. Much of the same ground was covered by the author in two articles, "The Development of Planned Rural Communities," *Rural Sociology*, 3: 383-409 (December, 1938), and (with Dwight M. Davidson) "Sociometry and the Study of New Rural Communities," *Sociometry*, 2: 56-76 (January, 1939). The student approaching the voluminous literature on the rural community for the first time would do well to read the comments of Walter Kollmorgen and Robert Harrison in "The Search for the Rural Community," *Agricultural History*, 20: 1-8 (January, 1946). These writers argued that many rural sociologists were impressed by the need for more secure relationships in an age of pronounced individualism and that this belief shaped their approach and colored their research findings.
[23] Loomis, *Social Relationships*, 15.

than as a matter of cool rational self-interest of individuals."[24]

A particularly broad social cleavage existed in one Farm Security Administration project, based on the regional origins and agricultural experience of the settlers. But in the face of mutual enemies and problems the members of the two groups tended over a period of time to break ranks and form new social groupings.

In general, settlers on the Farm Security Administration projects exchanged work and borrowed tools more frequently than did farmers in long established control communities. Such practice was related, no doubt, to the fact that the resources of the settlers were less adequate than those of farmers in longer-settled communities.

Loomis was interested in the way in which social groups developed in the new communities. He found that families tended to associate with families whose patterns of social behavior were similar, and that there was some tendency for families of similar economic status and levels of living to associate. But other sources fed the springs of friendship also; evidence showed that some individuals established strong ties with others whose personalities were complementary to theirs. Kinship was an important factor in visiting patterns and social relationships generally, but was less important in the new communities than in older ones. Loomis hypothesized "that one of the significant differences in community organization in the older established areas . . . may be traced to the more significant influence of kinship as a bond . . . ."[25] There was a greater tendency in the Farm Security Administration communities for social contacts to be more directly related to distance than elsewhere. Presumably scattered kin and interest group relationships had not had time to develop to the same extent in the new communities.

What were the backgrounds of the leaders who emerged on the resettlement projects? When the settlers looked among themselves for leaders, they tended, Loomis discovered, to choose individuals who had held positions of leadership before migration.

Where Loomis analyzed seven Farm Security Administration farming projects in a short government publication, Edward C. Banfield devoted a monograph to the description of one co-operative farm project of the same agency in Arizona.[26] He sought primarily to explain why the project failed, although at the time of failure serious economic problems had for the most part been solved and the community seemingly could look forward to a prosperous future under the management of the cooperators. Banfield set as his goal the task of understanding the 60-odd families at Casa Grande and the government officials involved "as sensitive and perceptive people generally try to understand other people," rather than "in terms of culture, or psychoanalysis, or economic determinism, or behaviorism!"[27]

The history of Casa Grande was marked by ceaseless factionalism and criticism of government administrators and policy. The basic problem at the project Banfield believed was twofold. Federal officials committed a fundamental error in construing the causes of all behavior as rational and economic. On the other hand, the "settlers were unable to cooperate with each other and with the government because they were engaged in a ceaseless struggle for power."[28] Banfield described the complex of factors which produced such a situation:

> Some of the settlers . . . felt that the resettlement project was a 'come down' and evidence that they had failed in life, had strong feelings of guilt which they expressed in hostility toward fellow settlers and government officials who were placed over them. Some were aggressive personalities of a type not uncommon in American life. A few may have been neurotic. These settlers (and many of the others as well) felt, or from association with others of the group came to feel, an acute need to assert claims to status. The chief avenue to status in the project situation was power in the management of the farm. This power could be secured in one of two ways; it could be had by joining forces with the government and serving as a foreman, or, informally as a supporter of the management, or it could be had by leading or participating in an anti-government faction.[29]

Banfield further speculated that the settlers were afflicted by *anomie*, the term used by Durkheim to describe "the disturbed men-

[24] *Ibid.*, 16.
[25] *Ibid.*, 32.
[26] Edward C. Banfield, *Government Project* (Glencoe, 1951).
[27] *Ibid.*, 17.
[28] *Ibid.*, 231.
[29] *Ibid.*, 232-233.

tal state of people who do not feel the restraint and discipline of socially-defined rules."[30] He admitted that there were things to be said both for and against applying this concept to the settlers at Casa Grande. Clearly, however, life on a co-operative farm required development of new patterns of social behavior by settlers who had been reared in the cotton culture of the Southwest. But they found it difficult, if not impossible, to develop within the group on the farm a new common system of conduct, belief and expectation to replace that of a society which they believed unsympathetic to the kind of enterprise on which they were embarked.

In *Modern Homesteaders,* the social anthropologist, Evon Vogt, has studied a New Mexican community which was established in the early 1930s by settlers who left the main current of southwestern migration to California and sought to carve out homes for themselves on the Pueblo Plateau to the south of Gallup.[31] To a far greater extent than any other community discussed here, the circumstances under which "Homestead" was founded paralleled frontier conditions during the nineteenth century. The members of the group were not screened by any selection agency, nor had they known abject poverty in their former homes. They were on the move before the depression of the thirties blasted free the main tide of "dustbowlers" and "Okies."

Although he did not ignore the geographic, economic, and demographic bases of Homestead, Vogt's central concern was with the values, or more precisely the value orientations, of the residents. These last he defined as "patterned clusters of certain associated values around important foci in the life situation of a cultural group."[32] In the behavior of the homesteaders, "these revealed themselves as a strong stress upon individualism . . . ; an accent upon . . . hopeful mastery over nature . . . ; an emphasis upon the future . . . ; a patterned balance between working and loafing; and a very complex combination of group-superiority and group-inferiority orientations in their relationships to other cultural groups."[33] Persistence in these value orientations in 1955 Vogt believed was leading to the disintegration of the community, since continued adherence to them was producing a pattern of widely scattered small ranches in place of the original compact community. This interpretation, he argued, was a considerable modification of the usual explanation that cultural patterns and processes are determined primarily by the environmental situation, by considerations of biological and/or social survival, by basic economic realities, or by a combination of these. The contrasting cultures of nearby Mormon, Spanish-American, and Indian settlements provided material for comparative purposes. Vogt was not primarily interested in discovering and revealing those aspects of Homestead's social life which reflected the newness of the community, nor did he reveal any particular awareness that it may take time to develop cohesion in a new social system. Perhaps there never was a community at Homestead in the sense of many definitions of the word. There seems also implicit in Vogt's study the assumption that the group should have survived in its original form, rather than shifting in its patterns toward the ranching economy of the region. Granted that value orientations were important in this transformation, the economic realities of the situation were probably more important than Vogt was willing to admit. Had nineteenth century pioneers on the great plains been so dominated by their value orientations as Vogt believed the settlers of Homestead to be, it is difficult to understand how the region could ever have been settled.[34]

[30] *Ibid.*, p. 239. Robert Merton brought this concept up to date in 1938, ultimately allocating a chapter to it in *Social Theory and Social Structure* (Glencoe, 1957, rev. ed.), 131-160.

[31] Evon Z. Vogt, *Modern Homesteaders: The Life of a Twentieth Century Frontier Community* (Cambridge, (1955).

[32] *Ibid.*, 7.

[33] *Ibid.*, 11.

[34] A number of other community studies are rewarding. Russell Lord and Paul H. Johnstone, *A Place on Earth: A Critical Appraisal of Subsistence Homesteads* (Bureau of Agricultural Economics, Washington, 1942); Alan R. Beals and Thomas McCorkle, *Lost Lake: A Study of an Agricultural Community Established on Reclaimed Land,* Kroeber Anthropological Society *Papers,* 3 (Berkeley, 1950); George W. Hill, Walter Slocum, Ruth O. Hill, *Man Land Adjustment: A Study of Family and Inter-Family Aspects of Land Retirement in the Central Wisconsin Land Purchase Area,* Wisconsin Agricultural Experiment Station, *Research Bulletin 134* (Madison, 1938); and George W. Hill and Ronald A. Smith, *Man in the "Cut-Over:" A Study of Family-Farm Resources in Northern Wisconsin,* Wisconsin Agricul-

Recently, two young historians, Stanley Elkins and Erick McKitrick, have explored the theme of frontier democracy in two important articles that owed much to a study of the psychology of housing directed by Robert Merton.[35] Since they visualized the frontier basically as a complex of new communities, it is appropriate to discuss their work before moving on to other aspects of social science thought. Turner, they wrote, had stated an "undeniable fact—that an organic connection exists between American democracy and the American frontier." He provided no "conceptual framework," however, in which it might be tested. This Elkins and McKitrick proposed to do. To them democracy was "wide participation in public affairs, a diffusion of leadership, a widespread sense of personal competence to make a difference," and their specific hypothesis ran as follows: "Political democracy evolves most quickly during the initial stages of setting up a new community; it is seen most dramatically while the process of organization and the solving of basic problems are still crucial; it is observed to best advantage when this flow of basic problems is met by a homogeneous population." To them "homogeneity" involved "a similar level of social and economic status and aspirations among the people," but also the absence of "a traditional, ready-made structure of leadership in the community."[36]

In one of the housing projects—Craftown—studied by the Merton group, the failure of officials and agencies to provide adequate community services produced a spontaneous movement among the new residents to create local associations and engage in politics to remedy matters. On another project, Hilltown, where an emergency of this sort did not occur, the occupants showed little inclination to ape the agitated residents of Craftown. From this contrast in behavior Elkins and McKitrick drew the inspiration for a "model" which involved "the establishment of new communities. Its variables . . . a period of problem solving and a homogeneous population whose key factor . . . [was] the lack of a structure of leadership."[37] The frontiers of the Northwest, the South and Massachusetts Bay provided the data for testing the model. Elkins and McKitrick concluded that democracy reached its fullest expression where the pioneer population was homogeneous and the range of problems greatest, as in the Old Northwest.

The mechanics of proof applied by Elkins and McKitrick were less rigorous than the introduction of a theoretical model seemed to promise. Their comparisons between major frontier regions were too broad and their specific illustrations too incomplete and indiscriminate to be more than suggestive. In portraying communities reacting in unified fashion to common problems, these Neo-Turnerians may have paid too little attention to another element in social dynamics—the politics of conflict and community power structure.[38] Their stress on homogeneity of population may present difficulties also. Wisconsin research in action has shown that neighborhoods in which the residents were solidly of the same cultural background were

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tural Experiment Station, *Research Bulletin 139* (Madison, 1941). Studies of older communities exist in great numbers. The treatment of historical factors in them usually makes the historian cringe, but some are more perceptive. Edward Moe and Carl C. Taylor, *Culture of a Contemporary Rural Community: Irwin, Iowa*, United States Department of Agriculture, *Rural Life Studies*, 5 (Washington, 1942) is one of a justly-respected series. Richard E. Du Wors, "Persistence and Change in Local Values of Two New England Communities," *Rural Sociology*, 17:207-217 (September, 1952), is thought provoking. Walter M. Kollmorgen, *The German-Swiss in Franklin County Tennessee: A Study of the Significance of Cultural Considerations in Farming Enterprises*, United States Department of Agriculture (Washington, 1940) is a challenging study of cultural differences. Dwight Sanderson, "Criteria of Rural Community Formation," *Rural Sociology*, 3: 373-384 (December, 1938), is a distillation of the thought of one of the great rural sociologists of the last generation. There is a growing number of studies of housing projects, but such studies hardly offer as close a parallel to the frontier of the nineteenth century as do studies of new rural communities.

[35] Stanley Elkins and Eric McKitrick, "A Meaning for Turner's Frontier," *Political Science Quarterly*, 69: 321-353, 565-602 (September and December, 1954). The housing study to which the work of this team is so heavily indebted was still unfortunately not in the public domain at the time of this writing. The working title cited by Elkins and McKitrick was *Patterns of Social Life: Explorations in the Sociology of Housing*, by Robert K. Merton, Patricia S. West and Marie Jahoda.

[36] The passages paraphrased or quoted in this paragraph appear in "A Meaning for Turner's Frontier," 325, 330.

[37] *Ibid.*, 330.

[38] This possibility was first suggested to me by Mr. Robert Dykstra who found the community response formula of the local and county historians to be highly misleading in the course of his research on the early histories of Abilene and Ellsworth, Kansas. My own reading in the newspapers of a number of middle western county seats supports this criticism.

often socially inactive.[39] On the other hand, some historians may question the proposition that the pioneers in the frontier communities of the Old Northwest were uniformly or even generally homogeneous. One wonders also whether the problems posed by the frontier period there were really of the same order as those that threatened to take the bemused residents of Craftown back to the era of the individual septic tank and the ambulatory school child. Despite such questioning, Elkins and McKitrick have produced exciting and imaginative history. Before leaving their work, however, it is well to stress that their theory of social behavior is basically the Turnerian one of simple response to the opportunities and challenges of the physical and economic environment.

In 1927, Pitrim Sorokin suggested that the individual in a society characterized by mobility tended to be more plastic, versatile and individualistic, as well as less narrow minded. In such a society invention and discoveries were facilitated. At the same time, social intimacy diminished and the mobile individual faced psychological isolation and loneliness which might in turn stimulate emotional pursuit of friends or pleasures. Mental strain and mental disease increased among the mobile and the disintegration of morals was fostered.[40] Many of the social characteristics of Sorokin's mobile individual were similar to those attributed by Turner and his followers to the influence of the frontier.

In descriptions of new colonies of rural migrants from the southern uplands in urban centers during the last generation, one finds patterns of social behavior very similar to those attributed to the frontier. Before the American Historical Association in 1957, Everett S. Lee suggested that the major determinative force in shaping American development had been mobility of which the frontier movement illustrated one aspect.[41] Migration, he stressed, is selective and the frontier population could be expected, therefore, to vary in terms of age, sex composition and other social characteristics from that of older settlements, and some differences in social behavior might be attributed to these circumstances.[42] Recurrently, of course, students have suggested that particular personality types are more prone to migrate than others.[43]

Among the reasons suggested recently by Harold D. Lasswell for the speedy acceptance of psychoanalytic thinking in the United States was the sexual tension in American life. This tension, he believed, was due in part to the process of western settlement which "introduced housewives and schoolmarms into the wide open spaces where men were men and women had been distant fantasies or immediate bargains." Important too, he believed, had been the uprooting of "country boys and girls or peasants from the ties of primary neighborhood."[44] Professor Lasswell's conception of the West may have

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[39] John H. Kolb, *Emerging Rural Communities: Group Relations in Rural Society, A Review of Wisconsin Research in Action* (Madison, 1959), 17.

[40] Pitrim Sorokin, *Social Mobility* (New York, 1927), 493-546. In this work "social mobility" embraced both vertical and horizontal mobility.

[41] Everett S. Lee, "A Sociological Examination of the Turner Thesis" delivered at the joint session of the American Historical Association and the American Studies Association, New York, December 30, 1957. The adjustment problems of southern highlanders in two urban centers are described in Grace F. Leybourne, "Urban Adjustments of Migrants from the Southern Appalachian Plateaus," *Social Forces*, 16: 238-246 (December, 1937), and by Morris G. Caldwell, "The Adjustments of Mountain Families in an Urban Environment," *ibid.*, 16: 389-395 (March, 1938). More recent work includes Howard Beers and Catherine Heflin, *Rural People in the City* and *Urban Adjustments of Rural Migrants*, Kentucky Agricultural Experiment Station *Bulletin*, *478* and *487* (Lexington, 1945 and 1946).

[42] James C. Malin tackled the problem of age and sex composition among frontier populations in a study of Kansas settlement some 20 years ago and concluded that "the men (farm operators) were conspicuously middle-aged." He summarized his research in Chapter 16 of *The Grassland of North America, Prolegomena to Its History* (Lawrence, 1947). The quotation is to be found on page 289. Professor Malin's figures do seemingly reveal that the farm operators in more recently settled areas usually were slightly younger than those in the longer settled regions of Kansas, but the differences were never as striking as the speculations of some Turnerians seemed to promise. More research of the same sort is badly needed in other states. Anyone interested in such work should read "An Approach to a Theory of Differential Migration," in Donald J. Bogue and Margaret J. Hagood, *Subregional Migration in the United States, 1935-50*, Vol. 2. *Differential Migration in the Corn and Cotton Belts: A Pilot Study of the Selectivity of Interstate Migration to Cities from Nonmetropolitan Areas*, Scripps Foundation Studies in Population Distribution, No. 6, 124-127.

[43] American purveyors of the Teutonic myth used this idea for instance, but it has never been removed from the realm of speculation.

[44] Harold D. Lasswell, "Impact of Psychoanalytic Thinking on the Social Sciences," in Leonard D. White, *The State of the Social Sciences* (Chicago, 1956), 86. Lasswell's reference to the breaking of primary group ties seems to be linked to industrialization, but obviously the description would have applied to many on the frontier.

stemmed from the projective techniques of the television industry rather than from more intensive research, but the implications of his argument are useful.

Viewing mobility as a major determinant in shaping the society of the frontier does indeed allow us to understand the frontier process more fully but perhaps it places the stress in the wrong place. Learning of opportunity in the West, journeying to it, seeking to exploit it while fitting himself into a new social *milieu* were all involved in the migration of a pioneer to the frontier. Movement from one location to another is a short run matter. Is it not reasonable to attribute changes in social behavior of a continuing sort in part at least to the problems faced by the pioneer in fitting himself into the social groupings, the system of roles and status, the structure of influence and power, which made up the new community in the West? Such social structures no doubt might take as long as a generation to acquire the relative stability found in older communities while leaders jockeyed for position and followers wavered in their allegiances, while the disillusioned were replaced and the newcomers fitted into the locality and interest groups of the community. To explore some of the possibilities in these suggestions, let us turn to the pioneer era on the prairies.

In the following pages appear a number of characteristics of the population and environment which have held true in most new communities in that portion of the Middle West stretching from the central prairies of Illinois westward through Iowa and on into Kansas and Nebraska, a region settled for the most part between 1840 and 1900.[45] In no community, perhaps, did they all hold with equal force and some of the more important qualifications must be discussed. They are written largely in terms of the new settlers who chose to carve farms from the timbered bottoms and grassy uplands, but with little modification they can apply as well to those who sought their fortunes in the tiny service centers and larger county seat towns of the prairie frontier. Taken together, they constitute a kind of common denominator of conditions in middle western communities. If we can accept these generalizations as valid, we can go further and on the basis of certain assumptions about human behavior suggest patterns of social action that might be expected to appear in the new settlements of the Middle West.

Most settlers moved to the new lands in the expectation that they would improve their economic and social positions. The two are closely related and any considerable improvement in one is almost invariably accompanied by improvement in the other. Economic position is the most important determinant of social status in America today, and this was all the more the case on the frontier where no community tradition of deference to particular families existed to cloud the relationship.[46] Demographers have suggested that the individual who leaves his old surroundings is reacting to a combination of factors, which, in some cases, repel him from his old home and in others attract him elsewhere, the action of all being modified to some extent by the available transportation facilities. No doubt the attractive factors were most important in explaining our western movement. But the dream of the pioneer did not envision a society of new pattern, rather a more attractive place in the social fabric for himself and his family.

There were, of course, individuals who haunted the outskirts of the settlements and drifted on as population thickened. The frontier newspapers and county histories occasionally chronicle the wanderings of such men. These were the forelopers of Frederick Jackson Turner, who moved on evidently to maintain a way of life that was congenial to them. They had little desire to become part of a stable community. Despite the mobility of the population in the frontier settlements, it is doubtful if such adventurers

[45] I shall not document the historical foundations of these generalizations closely. They are impressions based on work in the land disposal records of railroads, states and the federal government, in county records, in the newspapers of some dozen county seats, in agricultural periodicals of the region, in the manuscript population and agricultural census rolls, in the records and correspondence of eastern investors and middle western credit agencies, in several hundred county histories and in the standard secondary works.

[46] An introduction to research in social stratification is provided by Reinhard Bendix and Seymour M. Lipsett (eds.), *Class, Status and Power, A Reader in Social Stratification* (Glencoe, 1953); and John F. Cuber and William F. Kenkel (eds.), *Social Stratification in the United States* (New York, 1954).

formed any considerable percentage of the population. Our own age still has their counterparts. As Loomis discovered, those most apt to move on from the Farm Security Administration projects were those who had moved most often in the past.

By the act of migration the new settlers had broken those social relationships which had assisted them in patterning their lives in their former homes. Of course the severance was not necessarily absolute. The young bachelor making a start in life might journey to the west alone, but he might well be accompanied by friend or brother. If the migrant were married he was accompanied by his family or soon brought out the other members of his family circle to join him. A number of related families might well move together and old neighborhood friends might be discovered by accident or design in the new settlements. Colonization companies were organized in older communities occasionally for the purpose of migration. But unquestionably the move west shattered the social structure of which most pioneers had been a part and they had to fit themselves into a new one. The unity of the family and those other intimate social relations which are called primary relationships were broken, and much more completely shattered were the bonds of less intimate acquaintance which the resident of any locality builds up over time and which are sometimes called secondary relationships.

We must, of course, qualify our position to some extent. Although the practice was uncommon, a closely knit social group might move to the frontier in a body. The removal of the Ebenezer Society from western New York to the Amana settlements in eastern Iowa illustrated such migration.[47] At Amana the social structure was maintained and the members of the group faced only the task of re-establishing their means of livelihood in a new environment. The cohesion of such groups stemmed from the loyalty of the members to their peculiar social and religious beliefs. On the other hand, the community of interest shared by the members of a foreign language group might assist its members to build a new social structure but certainly did not eliminate the need to do so. Factionalism in the early history of the Sioux County Hollanders in Iowa, for instance, showed that the ethnic bond in itself was not enough to insure community peace.[48]

Frequently, the pioneers settled among neighbors who differed from them in cultural background. The foreign born, the Yankee stock and the members of the southern migration, which moved out of the southern border states in the years after 1800, constituted the major groups that participated in the settlement of the Middle West. But within these groups the social origins were varied. This was particularly so among the foreign born, but the settler of Yankee persuasion who was born and spent his early years in central New York differed somewhat in his standard of values and life training from one who had been born in New England or Ohio. Members of the major cultural groups tended to settle in the same areas, but there was usually some intermingling with other cultural groups, particularly in those regions where the dominance of one major group shaded into the dominance of another. Richard Lyle Power has described some aspects of the cultural mixing which occurred when Yankee and southern settlers intermingled north of the Ohio.[49]

But if the pioneer had neighbors, they were often distant at first. Isolation was the lot of the settler. Such isolation might be physical, it might be social and often it was both. The frontier farmer could expect to go through a period when neighbors were few or scattered, and the tendency of the farm unit to increase in size as the frontier moved west through the prairies similarly

[47] Bertha M. H. Shambaugh, *Amana, The Community of True Inspiration* (Iowa City, 1908).

[48] Charles L. Dyke, *The Story of Sioux County* (Orange City, 1942), 99-101.

[49] Richard L. Power, *Planting Corn Belt Culture: the Impress of the Upland Southerner and Yankee in the Old Northwest* (Indianapolis, 1953). Although focussed on the present, the work of Douglas G. Marshall and Peter Munch is stimulating as well as the Kollmorgen study cited above. See "Nationality and the Emerging Culture," *Rural Sociology*, 13: 40-47 (March, 1948), and "Social Adjustment among Wisconsin Norwegians," *American Sociological Review*, 14: 780-787 (December, 1949). In "Pioneer Farmers and Innovation," *Iowa Journal of History*, 56: 1-36 (January, 1958), I attempted to relate differences in farming patterns to ethnic differences with less success than the work of the sociologists had led me to expect.

worked to increase the isolation of the individual farm family. Socially, the pioneer was isolated until he could build up a net of primary and secondary relationships. Social isolation of this sort could be accentuated by language barriers or less striking but still important, cultural differences. The "Nobscotter" members of New England settlements in Iowa might seem uncongenial neighbors indeed to nearby farmers of southern stock, and cultural schism of this sort retarded the formation of new group ties.

The members of most social groups do not participate on a basis of complete equality, but rather, informally or formally, ascribe varying degrees of leadership and status to each other. In a period when groups are being formed, competition exists among potential leaders to a considerable extent, creating a situation which is much more unstable than is ultimately the case when the group has shaken down and the members have come to know the virtues and deficiencies of their fellows more thoroughly. An important function of the leaders is to regulate the membership of the group. Acceptance of new members depends to a considerable extent upon the decisions of the leaders. The absence of a well-established leadership hierarchy duly recognized by a majority of the local residents was an important characteristic of frontier society. New residents, as a result, lacked authoritative guidance in fitting themselves into the social structure of the new communities.[50]

The new settlers faced a strange and untamed physical environment on the frontier. The farmer in the older settlements who moved to a new neighborhood also moved into a strange environment, but at least the resources upon which he expended his labor had yielded in large part to the ministrations of his predecessors. Although the pioneer might inherit a few improvements from a squatter or a previous owner, he still must face in some measure the rudimentary tasks of farm making—clearing, breaking, fencing, draining and well digging in addition to the construction of farm buildings.

Settlers faced the challenge of the physical environment with differing degrees of preparation. The internal migration patterns of the nineteenth century show that the pioneers of American stock had themselves often been reared in frontier communities and where such was the case they had a good understanding of the problems which they faced.[51] At the other extreme, of course, stood the European immigrant coming from communities where the agricultural resources had been in use for unremembered generations. But even the immigrants were usually rural in background and the agriculture of nineteenth century America required few skills that were difficult for anyone reared in agriculture to acquire. The tendency of migrants to move along isothermal lines assisted them to some extent in acclimatization and removed the necessity of learning how to cultivate new plants. But the prairies and particularly the plains would present problems unknown on earlier American frontiers.

Migrants to the West seldom found themselves completely outside a formal institutional framework, although the wagon trains moving through the plains country constituted something of an exception. The land distribution agencies of the federal government served the pioneer and on occasion federal troops or officers assisted in maintenance of order. A system of territorial government provided laws for the settlers although settlement might be extremely scanty. Both in the territories and in the subsequent frontier states, local county government moved with the settler. The churches, the major private agencies of social control, were never far behind the settlers, the denominations to greater or lesser extent modifying their doctrines and organization to meet the special problems of the frontier.

But if a formal institutional framework did exist on the frontier of the agricultural

[50] George Homans, *The Human Group* (New York, 1950), 188, ". . . the leader is the man people come to . . . his rank carries with it the implied right to assume control of the group. . . ." Obviously the power of the leader in this respect varies considerably from group to group.

[51] The extent to which this was true has probably been exaggerated, however. In his research on Kansas population, Professor Malin discovered that from 1875 through 1905 as many as three out of four new farm operators from out of state had migrated from noncontiguous states (*Grassland*, 288). It is probable that the proportion was lower before the development of the American railroad net.

settler and his town and village counterpart in the Middle West, it was often rudimentary or even sadly defective in its operation. The story of the agricultural frontier is interspersed with conflicts over land titles, and even the normal operation of the land laws in the Middle West operated in such a way that extralegal claim clubs developed or at best uncertainty over titles existed. In the early years of any agricultural community the revenues which could be raised by taxation might be inadequate to insure the satisfactory performance of community services by the local government or its agencies. In so far as the churches were concerned, the means to support a full-time clergy could seldom be found within the community.

Finally, in generalizing upon the frontier community of the prairies, we can say that the economic foundations were infirm, for it was highly dependent upon a continued flow of new personnel and additional capital and thus extremely vulnerable to fluctuations in business conditions. The nineteenth century pioneer farmer cannot be regarded as purely a subsistence farmer. Prior to the passage of the Homestead Act, and afterwards to a considerable extent as well, he must meet the costs of his land as well as other expenses involved in the farm making process. Clarence Danhof has estimated that the farm maker of central Illinois during the 1850s was forced to meet cash costs of at least $1,000 in the first few years of his farming operations.[52] Such costs probably rose as the pioneer pushed farther westward into regions where lower rainfall put increased demands for capital upon him. The settler in the Middle West, therefore, had of necessity to think in terms of production for sale. Particularly if communications with the older settlements were poor, an important part of the settler's market was provided by incoming migrants who were forced to buy much of their own food as well as various services from the "old settlers" until their own acres came to bearing. Capital flowed into the frontier community in a variety of ways—as savings brought by the newcomers, in the form of loans made by residents of older areas, in the shape of goods sold to the frontier merchants on credit, and through the medium of speculative land purchases which were in turn sold to the pioneer settlers on credit or in some cases rented to them. Such movement was closely related to the business cycle throughout the nineteenth century. Both settlers and capital ceased to move to the frontier settlements in time of depression, leaving those who were dependent on the continued flow of settlers and capital in extremely hard circumstances, as they sought desperately to meet their current commitments and avoid making others.

At this point we can make explicit a number of assumptions about the social behavior of the individual, which may perhaps be relevant in explaining some characteristics of society on the prairie frontier.[53] In the first place, the individual finds primary and secondary relationships essential to satisfactory living. Few individuals are really content to be hermits. Taken from their accustomed web of social relationships they may suffer from what is termed *anomie* or normlessness.[54] The leading exponent of sociometry, J. L. Moreno, has carried this idea

[52] Clarence H. Danhof, "Farm-Making Costs and the 'Safety Valve': 1850-1860," *Journal of Political Economy*, 69: 317-359 (June, 1941).

[53] These assumptions or postulates are derived in large part from the findings in the community studies discussed or noted above. Deprivation and substitute behavior are terms which are used quite generally in current sociological theory, although not always in quite the same sense as I have used them here. A helpful introduction to current thinking is to be found in Gardner Lindzey (ed.), *Handbook of Social Psychology* (Cambridge, 1954), "Contemporary Systematic Positions," 1 (part 2): 57-258, but see also the relevant chapters in Joseph B. Gittler, *Review of Sociology: Analysis of a Decade* (New York, 1957); Daniel Lerner and Harold D. Lasswell (eds.), *The Policy Sciences: Recent Developments in Scope and Method* (Stanford, 1951); and Robert K. Merton and Paul F. Lazarsfeld (eds.), *Continuities in Social Research; Studies in the Scope and Method of "The American Soldier"* (Glencoe, 1950). Among more specialized studies I found *Culture and Personality* (New York, 1954), by John J. Honigmann, and Floyd Hunter, *Community Power Structure* (Chapel Hill, 1953) to be very helpful. The student who accepts the approach of this and the following paragraphs has made at least two obvious commitments. He is willing to agree that the motivation of *some* behavior is not rational in the usually accepted sense of this word, and that the personality of an individual is sufficiently plastic that changes may occur due to social or other environmental pressures after adolescence let alone the very early years.

[54] W. I. Thomas and Florian Znaniecki, *The Polish Peasant in Europe and America* (2d ed., New York, 1927), 2: 1647-1822, is required reading for anyone interested in the problem of adjustment faced by immigrants or migrants.

to the point of arguing that group relationships may actually serve as therapy for the maladjusted.[55] On such basis we can at least argue that most individuals who moved to the frontier were highly interested in re-establishing a satisfying system of social relations. We can safely assume as well that the skills and aptitudes of individuals in a particular social setting vary in the degree to which they are appropriate for solving the economic and social problems which confront them. Some individuals could, in other words, adapt themselves to frontier conditions more succesfully than others.

Again, we can generalize that communication problems are an important source of conflict situations. If it was possible for individuals to explain their point of view perfectly there would be much less misunderstanding and argument. The greater the difference in the cultural backgrounds of individuals thrown into a common social setting the greater, it would seem, the danger of difficulties in communication. We can also suggest that the individual experiences deprivation when he fails to achieve a level of satisfaction which he considers minimal in the light of his experiences and future expectations. For the individual on the frontier undoubtedly the point at which deprivation set in was established, whether he realized it or not, prior to his movement to the new settlements—in that period of rosy dreams mentioned by one analyst of the resettlement projects. Finally, deprivation often prompts the individual to indulge in forms of substitute behavior. Failing to achieve adequate gratification by working in the recognized social channels he goes beyond them, and resorts on the one hand, perhaps, to crime, or at the other extreme, retreats into fantasy.[56] Emotional religion is sometimes considered to be an illustration of substitute behavior and undoubtedly a greater degree of horizontal mobility than ordinary can be justly considered in the same light.[57]

On the basis of such postulates and the general characteristics of frontier communities we can draw certain generalizations or hypotheses. Since individuals on the frontier lacked both the well-established institutions and the social customs which had assisted them in patterning their behavior in the communities from which they came, since a heterogeneous population engendered difficulties in communication, and since the economic resources were temporarily inadequate or might become so in short order, they were involved in a greater number of conflict situations than before migration. Since the economic environment presented problems that the individual found impossible, or extremely difficult, to solve for himself, there was a greater amount of informal co-operation when conflict was absent on the frontier than in older communities. Conflict situations, the failure to re-establish satisfactory social relationships, the absence of clearly defined social norms, and the failure of the new environment to meet the expectations of betterment originally held by some migrants produced considerable deprivation. This was reflected in: high crime rates, resort to emotional religion, heavy incidence of mental disease, and continued mobility. Finally, there was a greater degree of political participation on the frontier than in older communities. This resulted from the efforts of individuals to gain status through leadership in a relatively unstructured society, from the effort to establish group ties, and from the

[55] J. H. Kolb and Edmund de S. Brunner cite J. L. Moreno, *Who Shall Survive* (Washington, 1934) to this effect in their standard survey, *A Study of Rural Society* (3d. ed., New York, 1946), 323.

[56] An introduction to some of the thinking on the relation of the social situation to mental disorders is provided by Edwin M. Lemert, "An Exploratory Study of Mental Disorders in a Rural Problem Area," *Rural Sociology*, 13: 48-64 (March, 1948), including comments by A. R. Mangus; and Robert E. L. Faris, "Ecological Factors in Human Behavior," in Joseph Mc. Hunt, *Personality and the Behavior Disorders: A Handbook Based on Experimental and Clinical Research* (New York, 1944), 736-757.

[57] I first encountered this approach to religious behaviour in "The Place of Religious Revivalism in the Formation of the Intercultural Community of Klamath Reservation," by Philleo Nash in *Social Anthropology of North American Tribes* (Chicago, 1937 and 1957). Obviously it does not provide a complete explanation to frontier religious behavior. See Charles A. Johnson, *The Frontier Camp Meeting; Religion's Harvest Time* (Dallas, 1955). Other books and articles provide interesting clues as well. H. Richard Niebuhr, *The Social Sources of Denominationalism* (New York, 1929); Liston Pope, *Millhands and Preachers: A Study of Gastonia* (New Haven, 1942), Chaps. 6-7, Gerhard Lenski, "Social Correlates of Religious Interest," *American Sociological Review*, 18:533-544 (October, 1953); Russell R. Dynes, "Toward the Sociology of Religion," *Sociology and Social Research*, 38: 227-232 (March-April, 1954).

greater relative significance of the economic rewards of politics in the frontier community.

If we wished to change the focus of our interest, other implications might be drawn from this prairie model. Rural sociologists, for instance, have given much attention during the last decade to the way in which innovations in agricultural practices are adopted in rural communities.[58] Their findings, when viewed in the perspective of the mobility, the shifting channels of communication, and the unsettled influence and power structure of the pioneer community, may suggest rewarding lines of investigation to the historian interested in the two fold transformation which occurred when the pioneers met the special challenge of the prairie environment and shared simultaneously in the mechanization of American agriculture.

Value orientations undoubtedly modified frontier social processes, holding the pioneers firm against environmental pressures at some points—predisposing them to yield at others. But each western settler was a unique individual and if many in a pioneer neighborhood reacted similarly and made similar decisions some did not. Knowing that this was so, we cannot be too rigorously deterministic in explaining the behavior of the pioneers.

Obviously, the ideas in this article are only prolegomena to appreciation of the frontier as a "form of society." Some may be able to suggest alternative social theories which are more meaningful than those discussed here. Such theories must be tested in such a way that we do not distort past realities. Several western historians have recently called for comparative studies of frontier societies. Comparison calls for more precise delineation of the social and economic structure of frontier communities and a greater appreciation of the complexities and significance of social relations than is found in the writing of most frontier historians. Comparison implies measurement also, although the word is one which rouses a good deal of suspicion in the minds of many disciples of Clio. Such measurement demands the use of better measuring rods, or indices, of social, economic and political characteristics than anyone has yet devised. There are challenges here. There is an additional challenge in the fact that history is a literary art and that many of those who generate social theory are hardly literary artists. The historian who consorts with behavioral theorists, who rides the wind of social theory, may indeed reap the whirlwind.

[58] North Central Rural Sociology Committee, *Bibliography of Research on: Social Factors in the Adoption of Farm Practices* (Ames, 1956).

A HORSELESS CARRIAGE

A Mr. Richards, an ingenious mechanic of Donaldsonville, has invented a mechanical contrivance by means of which all accidents caused by the running away of horses in harness may be avoided. It is, says the Louisianan, of the simplest construction imaginable—the manner of checking the horses consists of pulling a string inside the carriage, which casts loose the traces, and harness, leaving the carriage perfectly clear of the horses. The invention can be applied to every species of vehicle, and costs only from 25 to 30 dollars.

The Genesee Farmer (1845)

OLD-FASHIONED HAND LOTION

A drop or two of honey well rubbed on the hands while wet, after washing with soap, prevents chapping, and removes the roughness of the skin. It is particularly pleasant for children's hands and faces in cold weather.

The Genesee Farmer (1847)

The Texas Court of Claims, 1856-1861

THOMAS L. MILLER

In 1835 when hostilities between Texas and Mexico began, the General Council of Texas made promises of land grants to soldiers who would take up arms against Mexico. After winning independence, Texas continued to grant bounty and donation lands to soldiers. In addition, from the bountiful supply of public lands, Texas made generous grants to settlers, to schools, to eleemosynary institutions, and to internal improvement enterprises.

As the public domain was so immense and the supply seemed to be inexhaustible, Texas was careless in the disposition of the land. The result was that many frauds were perpetrated against the Republic and State of Texas. Fraud was especially rampant in the granting of headrights and military warrants. Headright certificates were issued in each county by a board of land commissioners. So many fraudulent certificates were being obtained from these officials that congress passed an act in 1840 setting up a board of travelling land commissioners to go into each county and examine carefully the records of the issuance of these certificates. After a thorough examination of the records, the commissioners were to make a list of such certificates which they believed to be genuine and forward such list to the Commissioner of the General Land Office. The Commissioner was directed by this act to issue no land patents on headright certificates which had not been approved by the travelling board of land commissioners.[1]

There was also much duplicity in the case of bounty warrants and donation certificates which were issued by the secretaries of war and the adjutants-general. Secretary of War George W. Hockley complained of the practice of soldiers, who after serving one enlistment, were discharged and claimed their land, then re-enlisted and claimed the same amount of land again.[2] Often duplicate and triplicate certificates were issued in lieu of a supposedly lost warrant only to have all of them appear later at the Land Office with a survey made upon each certificate. Many certificates bore forged assignments.

In addition to this fraud and confusion, fire destroyed all the records of the War Department and Adjutant General's Office in October, 1855. Gone up in smoke were the records of warrants already issued by these officers as well as all the muster rolls which contained the proof necessary to obtain warrants for those soldiers, or their heirs, who had not yet received them. In reporting this fire, the *State Gazette* observed that "It will be necessary for the legislature to make some provision for the identification of the claims proved by the records in this office." The *Gazette* added further, "There is no doubt that the fire was the work of an incendiary."[3]

Following the fire, the legislature made no provision for carrying on the work of the Adjutant General's Office and, accordingly, Governor E. M. Pease suspended Adjutant General James S. Gillett from office on February 4, 1856.[4] This brought to an end, for the time being, the issuance of military land warrants.

To protect the State of Texas from fraudulent land and money claims of all sorts, "An act to ascertain the legal claims for money and lands against the State" was approved August 1, 1856. This act called for the election, by a joint vote of the two houses of the legislature, of a Commissioner of Claims to hold office until January 1, 1858. The Commissioner was to keep his office in Austin, make bond of $20,000, and receive an annual salary of $2,250. He was authorized to appoint one clerk to be paid $1,000 per year. In case a vacancy should occur in the office during the recess of the legislature, the Governor was directed to appoint a successor who should serve until ten days after the convening of the next legislature.[5] Two rooms in the basement of the Capitol were assigned

[1] H. P. N. Gammel (ed.), *Laws of Texas* (10 vols., Austin, 1898), 2: 313-317.

[2] "Report of the Secretary of War to the Third Congress, November 5, 1838," quoted in William M. Gouge, *The Fiscal History of Texas* (Philadelphia, 1852), 82.

[3] *State Gazette* (Austin, October 13, 1855), 2.

[4] E. W. Winkler, "Destruction of Historical Archives in Texas," *Southwestern Historical Quarterly*, 2: 155 (Oct., 1911).

[5] Gammel, *Laws*, 4: 432-442.

to the office of Commissioner of Claims.[6] This office was called the Commission of Claims or the Court of Claims. On November 24, 1857, a joint resolution of the legislature authorized the employment of two additional clerks for the office until January 1, 1858.[7] On January 16, 1858, the pay of the Chief Clerk was raised to $1,200 per year and a second clerk was authorized at a salary of $900 per year. Also, this act of January 16, 1858 extended the term of the Commissioner to September 1, 1859.[8] The Chief Clerk was no mere clerical assistant but apparently performed about the same tasks as did the Commissioner.

Six men served as Commissioner of Claims. The Legislature of Texas elected James C. Wilson on August 7, 1856 to be the first Commissioner of the Court of Claims.[9] Mr. Wilson served until he resigned on June 1, 1857.[10] For his successor, Governor E. M. Pease chose James O. Illingworth on June 27, 1857.[11] Mr. Illingworth resigned effective January 7, 1858,[12] and the legislature elected Edward Clark on January 16, 1858 to succeed him.[13] Mr. Clark resigned on July 6, 1859,[14] and Joseph Lee was appointed the next day[15] and served until September 1, 1859 when the Court was due to expire. At this time, as provided by law, the Comptroller, Clement R. Johns, became acting Commissioner of Claims,[16] and served until February 7, 1860. On February 7, 1860 the legislature re-created the Court [17] and also on that date chose William S. Hotchkiss as Commissioner.[18] Mr. Hotchkiss served until December 31, 1861, when the term of the Court ended.

For some 20 years Texas had indiscriminately issued countless land certificates of all classes with the natural result of fraud. Subsequently, the legislature decided to halt the wild venture, to provide for a careful audit of all certificates heretofore issued, to cancel the improper ones, and, in deserving cases supported by adequate proof, to issue such additional certificates as would satisfy the just claims of those to whom Texas still owed land. This would bring to an end the entire matter.

The tasks assigned by the legislature to the Court of Claims were: (1) to require all previously issued land certificates (with certain exceptions to be noted later) to be presented to the Court of Claims for registry, and approval or rejection, and (2) after careful investigation, operating under rigid rules of proof, the Commissioner of Claims was to issue original, duplicate, and unlocated balance certificates to those entitled to such. The certificates excepted from the law were (1) first and second class headrights which had already been certified to be genuine by the travelling board of land commissioners, (2) all certificates issued under special acts of the congress or legislature, (3) certificates issued to the colonists of Peters, Mercer, Castro, Fisher, and Miller, and the colonists of the German Emigration Company, (4) premium lands issued to said colonists, and (5) certificates issued to companies for internal improvements and to persons for building ships. All other certificates were required to be presented to the Court prior to September 1, 1858 or else to be forever barred from location, survey and patent.[19]

Later, when the Court was re-created, the time limit for presenting certificates to the Court for approval was extended to June 1, 1861.[20] The Commissioner, however, continued to approve and reject certificates until the Court expired on December 31, 1861. Certificates upon which surveys had been made and patented were not examined by the Court. Certificates in the General Land Office with surveys which had not been patented were sent to the Court for Registry and approval or rejection. With the exception of the certificates exempted from the act and those upon which patents had been granted, all

[6] *Ibid.*, 4: 448.
[7] *Ibid.*, 4: 1140.
[8] Gammel, *Laws*, 4: 913.
[9] *Senate Journal. 6th Legislature: At Adjourned Session*, 192.
[10] *Circular of the Commission of Claims* (Austin, 1856), 18.
[11] Governor's Letters. (Pease) 1857 (January-June) MSS in Texas State Archives, Austin.
[12] *House Journal. 7th Legislature*, 505.
[13] *Journal of the Senate. 7th Biennial Session*, 345.
[14] *Governor's Letters (Runnels), 1859* (April-September).
[15] *Executive Record Book: Governor Hardin R. Runnels, 1857-1859* (MSS in Texas State Archives, Austin), No. 277, 3: 36.
[16] Gammel, *Laws*, 4: 918.
[17] *Ibid.*, 4: 1416.
[18] *House Journal. 8th Legislature. Regular Session, 1859-1860*. 644-645.
[19] Gammel, *Laws*, 4: 432.
[20] Gammel, *Laws*, 4: 437.

other certificates became invalid unless approved by the Court of Claims. Thus, the Commissioner of Claims had the power to reject any certificate that he felt had been fraudulently obtained from an original grantee, or which, in his opinion, should never have been issued in the first instance.

The act of February 7, 1860 provided that upon the expiration of the Court all documents and records of the office, with the exception of those obtained from the Auditor, should be deposited in the General Land Office and be preserved there as a part of the archives of that Office.[21] The Commissioner of Claims was also to be furnished by the Land Office a true copy of a muster roll prepared by the Adjutant General in 1850.[22] The Commissioner of Claims was also to secure from the Land Office a full and descriptive list of all certificates returned to the Land Office with surveys.[23] Commissioner of Claims Edward Clark on September 1, 1858 was obviously distressed because he had not received this register, for he wrote, "It is much to be lamented in this behalf that a Register of Bounty and Donation warrants returned to the General Land Office has not as required, been furnished this office."[24]

When a certificate arrived in the office of the Court of Claims, the law required the Commissioner to date and sign it and to write across its face, "Registered." Then came the task of establishing the validity of the certificate.[25] The register sent over by the Land Office was consulted to see if the person had already had a survey on a headright, if the certificate was a headright. If the certificate happened to be a bounty or a donation, the muster rolls were checked to establish the service. If his name were not on the muster roll, the holder of the certificate had to prove by two creditable witnesses that he had actually performed the service or submit an honorable discharge. The law forbade any but the Commissioner or his Chief Clerk to look at the muster rolls. Neither could the Commissioner approve any bounty or donation certificate issued to an assignee after November 24, 1851 until the genuineness of the transfer and the identity and residence of the parties thereto could be proved by the testimony of two creditable witnesses. All oral testimony was reduced to writing and signed under oath and preserved in the office.[26] To aid the Commissioner in this work, the Chief Clerk was empowered by law to administer oaths.[27]

As a final part of the duties of the Commissioner of Claims, he was authorized to issue original, duplicate, and unlocated balance certificates. This task the Commissioner performed with great care. No longer could a soldier receive two or more original warrants when he was entitled to only one, nor could he easily obtain a duplicate. Had the secretaries of war and adjutants general exercised like care, one can only guess at the amount of the public land which would have been saved.

In issuing original military warrants, the Commissioner of Claims generally followed the provisions of the law in effect on November 1, 1853 with some additional safeguards. The 1853 law required the applicant for a military warrant to present his honorable discharge signed by his commanding officer and by one officer of field grade or the commandant of a post. The law governing the Court of Claims further required the applicant to prove his identity and residence by two creditable witnesses. After the Commissioner of Claims was satisfied as to the identity and military service of the claimant, he checked the Land Office Register to see if the applicant had already received his certificate. Many certificates presented to him for approval, as well as many original applications for land, had this notation written on them by the Commissioner: "Soldier has already received all the land he is entitled to." The 1856 law did not permit the Court to issue military certificates to an assignee of a soldier. This practice had formerly been condoned.[28] Many

[21] *Ibid.*, 4: 1419.
[22] *Ibid.*, 4: 437.
[23] Gammel, *Laws*, 4: 433-434.
[24] *Report of the Commissioner of the Court of Claims, September 1, 1858* (Austin, 1859), 5.
[25] The correct name of the document which entitled one to receive bounty land was "warrant." The document authorizing one to obtain donation land is correctly called a "certificate." The terms "warrant" and "certificate" were often used interchangeably as is done in this paper.
[26] All of this sworn testimony is now in the Land Office stored in five metal drawers labelled, "Vouchers, Approved, Suspended, and Rejected."
[27] Gammel, *Laws*, 4: 435-436.
[28] Gammel, *Laws*, 4: 435.

soldiers, prior to 1856, sold their rights to certificates before they received them.

Persons seeking to prove the validity of a certificate or applying for an original certificate who found it inconvenient to appear before the Court were permitted to make depositions, but such sworn statements had to be administered "by an officer of *this* state."[29] For some applicants this presented a hardship because their witnesses lived outside the state. In such cases the law directed the Commissioner to submit such evidence as he had together with his recommendation to the legislature.[30] As a result of this, the legislature granted many certificates by relief or special acts, and the legislature was certainly more generous than the Commissioner when it came to granting certificates. At one time, the Commissioner of Claims suggested to the legislature the advisability of adding to each such relief act the words, "providing the party has not heretofore received the land he is entitled to."[31]

The law of February 7, 1860 changed the requirements for receiving military land certificates. Under the new system the applicant must apply before June 1, 1861; make an affidavit that he was in the service and state the length of such service; affirm that he was honorably discharged; and if the discharge had been lost, to so state and swear that he had not already received the land due him; prove by two creditable witnesses that he was in the service; and prove his identity by two witnesses. After all this, if the Commissioner found in his office any evidence of his service, he could issue the certificate. If such evidence was lacking, the Commissioner referred the matter to a special board consisting of himself, the Commissioner of the General Land Office, the Comptroller, and the Treasurer. This board was to meet in the office of the Commissioner of Claims on the first Monday of each month to decide each case on its merits. One feature of the new law which was more liberal than the old was the provision which accepted depositions made outside the state if they were made before officers who were authorized by the laws of Texas to take authentications for instruments of registry.[32]

The several Commissioners of Claims, bound by very strict laws, were indeed careful in issuing new warrants. This reluctance is shown by these remarks of Commissioner Edward Clark:

> It now devolves upon me to begin the issuance of bounty and donation warrants: a work which, under existing circumstances, must progress slowly, and one which I approach with considerable apprehension. It must be tedious because of the great care and caution that must be observed to avoid issuance of improper grants, and I begin with trepidation, because of the chances, under the limited "detective" means of the office, for my awarding grants which are not deserved, or have been heretofore awarded.[33]

The Commissioner of Claims could issue duplicate certificates in cases where the original had been lost or destroyed, with these requirements: That the applicant prove by the testimony of two creditable witnesses that the original was in fact issued to him, that the original had not been returned to the General Land Office with a survey, and that the applicant proved his identity and residence by two witnesses.[34]

It was easier for an applicant to receive an unlocated balance certificate. These certificates were issued when a certificate was used to survey an amount of land less than that granted by the certificate. For example, if one had a 320-acre certificate and sent it with a survey of 280 acres to the Land Office, the owner would be entitled to an unlocated balance certificate for 40 acres. To obtain such a certificate, the applicant was required to obtain a statement from the Commissioner of the General Land Office which gave the amount of land still due him and which fully described the original certificate. These documents, submitted with applications for land certificates, are of much historical interest.[35]

[29] *Ibid.*

[30] *Ibid.*, 4: 435-436.

[31] *Report of the Commissioner of the Court of Claims, August 31, 1859* (Austin, 1859), 31-32.

[32] Gammel, *Laws*, 4: 1414-1415.

[33] *Report of the Commissioner of the Court of Claims, September 1, 1858* (Austin, 1859), 5.

[34] Gammel, *Laws*, 4:438.

[35] When applications for original and duplicate certificates arrived in the office of the Commissioner of Claims, they were numbered and listed in a ledger. There are two such ledgers. One is styled, "Old Docket," and the other, "New Docket." In the first ledger are 438 pages divided into six parts and each part contains a summary of one application. The second volume has 123 pages divided into four parts. The evidence submitted with each application is now kept in metal file

A schedule of fees for issuing certificates was included in the 1856 act setting up the Court. No charge was made for an original bounty or donation certificate, but a duplicate or unlocated balance certificate cost $1.[36] The act of 1860 did provide for a charge for all certificates including bounty and donations. An application for a headright had to be accompanied by $2.50 and when granted the total charge was as follows: $5 for one league and a labor, $4 for one-half to one league, $2 for one-third league and 50 cents for lesser amounts.[37] In the application files are many which had been rejected with this notation: "Fee not paid."

From its establishment in August, 1856, the Court was flooded with certificates to be approved and with applications for land. At first, about all that could be done was to file and catalog the applications and register the certificates for later consideration. The first Commissioner, James C. Wilson, did start early to issue duplicate and unlocated balance certificates. On the first page of the ledger called "Record of Certificates Approved," is a copy of a report Mr. Wilson sent to the Treasurer on October 31, 1856 showing receipts of his office to that date, and it reveals that he had issued 17 duplicate and unlocated balance certificates. It was June 30, 1857 when the first bounty was approved,[38] and July 1, 1857 when the first donation was approved.[39] The first donation certificate issued by the Court of Claims was issued on July 8, 1857.[40]

When the number of certificates presented for approval is considered and the applications for land are counted, one can easily understand why it was nearly a year after the creation of the Court until the first certificate could be approved. To get the figures for the number of certificates handled by the Court, it was necessary to take the records kept by the Court and to make an actual count. Two printed *Reports* of the Court, those for 1858 and 1859, are extant and the *Texas Almanac* of 1861 had some summaries of certificates approved and certificates issued. These summaries proved inadequate because some periods were not covered. Of the original records only the Headright Register showing the headrights issued prior to 1856 was missing. The "Record of Certificates Approved (All Classes)," however, was used and the number of headrights presented and approved was found. A count of the headrights approved, in this volume, shows that 4,484 were approved. The Court of Claims also approved 2,317 bounty warrants, 657 donation certificates, and 484 scrip certificates. This makes a total of 7,941 certificates approved by the Court. This was no small job when one recalls the procedure followed in examining each certificate. The numbers of headright, bounty, donation, and scrip certificates that were rejected or suspended were not shown separately in these ledgers, and to get this information one would have to remove the several thousand vouchers from the tightly-packed files and look at each one. For bounty warrants, however, the information was obtained in another study, and it was found that the Court rejected 259 bounty warrants and suspended another 16 which were never approved. The 275 warrants invalidated saved the state 177,520 acres of land.

In the old and new "Dockets," there appeared 3,348 applications for land. Upon these applications the Court granted, counting both original and duplicate certificates, 329 headright certificates, 430 bounty warrants which granted 312,800 acres of land, and almost 250 donation certificates. The last headright was to Antonio Balle, and the certificate was issued on December 31, 1861—the last day of the term of the Court.[41] After the closing of the Court of Claims no more

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drawers. There are ten drawers of "Applications for Land." Each case was given a voucher number and the voucher number of each file is given in the "Dockets" as well as in an index of the two dockets arranged in alphabetical order. The papers buried here are most interesting. Packed into these drawers are letters written by the survivors of the Goliad Massacre and some penned by the defenders of the Alamo written as late as March 1, 1836.

[36] Gammel, *Laws*, 4: 435.

[37] Gammel, *Laws*, 4: 1418.

[38] "Record of Certificates Approved (All Classes) by the Court of Claims," 300. MSS in General Land Office, Austin.

[39] *Ibid.*, 376.

[40] "Record of Certificates Issued from July 8, 1857 to December 31, 1861 (Bounty and Donation) by the Court of Claims," 400. MSS in General Land Office, Austin.

[41] "Headrights Issued by the Court of Claims." MSS in GLO.

original certificates were issued under the general laws passed prior to this time. The legislature did thereafter authorize the granting of bounties and donations by special act. These certificates were issued by the Commissioner of the General Land Office. In the case of bounty grants, the last special act calling for a land certificate was approved April 2, 1887, and the Commissioner of the General Land Office issued the certificate to the heirs of Alexander Farmer on February 28, 1888.[42]

The diligence and care taken by the Court in the issuance of land certificates may be shown by this summary which Commissioner Joseph Lee gave in his 1859 *Report*:

> There have been since the commencement of this office, 2,798 original applications for land, which have been disposed of as follows: By Joint and Select Committees of the Legislature, 321; Duplicates heretofore issued, 231; Duplicates issued since September 1, 1858, 63; leaving for action of the Commissioner, 2,183 of which there have been passed for issuance, 200.[43]

An examination of the files of rejected certificates reveals many interesting cases. In GLO File Fannin Bounty #356 is bounty warrant number 1744 which has written across the face of it in red ink these words, "Rejected because I have reasons for suspecting the genuineness of the transfer from the original grantee because it appears in the black list, 4 September 1860. W. S. Hotchkiss, Commissioner of Claims." Apparently, among the "limited detective means" of which Commissioner Clark wrote, there was a "black list" of suspected forgers. It seems also that the Commissioners had another list of people who purported to be "creditable witnesses" to bolster various applicants for land but about whom the Commissioners had their doubts. In the "Old Docket" on page 109, voucher number 653, in the application of a Mr. Rangel for land, the Commissioner disposed of the case with these remarks, "This claim is proved in part by Margarito Sanchez, one of the witnesses who disqualified himself by swearing to a multitude of claims of which the name of the applicant is left blank, to be filled in by any person."

Special headrights and augmentations were given to men with military service, but the original colonists, those in Texas on March 2, 1836, except Indians and Negroes, were entitled to headrights provided they did not leave the country to escape military service. Military service was not, then, a requirement for a headright. Commissioner Hotchkiss, however, felt that all who did not fight for Texas must have opposed the State. That is the impression, at any rate, one may get upon reading in the "New Docket" on page 19 in his remarks as to the disposition of the claim for a headright brought by one Nicolas de los Santos, for he wrote:

> The proof shows that he has been a resident of San Antonio all his life, but there is no evidence that he ever assisted Texas in her struggle for Independence. We do not think it possible for him to have remained neutral during the entire revolution; and if, he did, we conceive that it is not the spirit of the law to grant a headright to one who failed to assist Texas when assistance was so much needed.

The last year of the existence of the Court, 1861, coincided with the first year of the War between the States. Some of the brave men who aided Texas in her revolution had gone back to their old homes in the North. One such man was John H. Lockhart, who on September 19, 1860 sent from his home in Dover Hill, Indiana, an application to the Texas Court of Claims for some additional bounty land to which he believed himself entitled. His application is recorded in the "New Docket" on page 38, voucher number 154. As appreciative as Commissioner Hotchkiss was to those who had aided Texas, it seemed too much for him to approve a Texas land grant in 1861 to a man living in Indiana, for he wrote on this application, "I am of opinion that the party is entitled to 640 acres more bounty land but being a resident of the North it cannot be issued till after the termination of the war." In such a spirit of fairness and extreme care did the Texas Court of Claims attempt to "ascertain the legal claims of money and lands against the Republic and State of Texas."

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[42] "Special Act Certificates 14/1 to 14/84. Issued by the Commissioner of the General Land Office 5-21-73 to 7-22-91." MSS in General Land Office, Austin.

[43] *Report of the Commissioner of the Court of Claims, August 31, 1859* (Austin, 1859), 10.

Book Reviews

Bondsmen and Bishops: Slavery and Apprenticeship on the Codrington Plantations of Barbados, 1710-1838. By J. Harry Bennett, Jr., *University of California Publications in History,* Volume 62. (Berkeley, University of California Press, 1958, xii, 176 pp., $3.50.)

This interesting monograph points up the "complexity and flexibility of plantation management in a slavery regime." When Christopher Codrington willed two Barbadian sugar plantations to the Society for the Propagation of the Christian Religion in Foreign Parts, he handed on a dual purpose project. The Society was supposed to maintain 300 slaves on the plantation. At the same time the Society interpreted its duty to be one of aiding and Christianizing the slaves. Likely it was not realized at the outset how closely the two provisions were related.

Gradually the truth revealed itself: Christianization of the Society's slaves was not to be achieved. The goal was especially unattainable because the Society preferred to maintain general colonial conformity with Barbadian planter policy on most other matters. The unfortunate choice and early death of the first four missionaries, opposition from local planters and clergy, the constant turnover in slave population, the cultural barriers of uneducated Africanism, and the drag of conservative social philosophy were important factors explaining why Christianization of the slaves was not possible.

The study stressed the importance of basic economic factors. A problem of maintaining an adequate work force was one of continuous threads. The regular purchase of new slaves from Africa was costly because nearly one out of two imports died before they were seasoned. It was difficult to buy seasoned workers apart from the land in the West Indies. The Society went so far as to purchase another plantation in order to secure workers. For a time the policy of hiring slaves was used, but it was found to be uneconomical. In spite of all measures, the slave population at Codrington declined between 1710 and 1792. An extreme move, as radical as the reduction in production efforts, was instituted in order that the field gangs would not be over-worked.

After 1792, the natural growth of new world stock began to increase. Professor Bennett makes it clear that living conditions and the general psychological atmosphere improved at Codrington after 1767 when the last African slaves were brought in. The study carefully traces the improvement of slave conditions. It does not (possibly could not) make it clear how much credit for the increase in slave population was due to amelioration and how much was due to other factors.

The author deals with various phases of amelioration of slave life. He found "reason to believe" that morale was higher at Codrington than at other Barbadian plantations. The Society wanted to demonstrate to the West Indian proprietors that "Christianity and slavery were wholly compatible." At first it seemed that a conflict of goals, humanitarian and economic, struck at the bases of colonial society. The humanitarians believed that Christianization of the slaves could be brought about only by rapidly raising the level of civilization of the blacks. This would have entailed such a social revolution as to be unbearable to Caribbean colonists.

A definite impetus for change was noticed when it became necessary to improve slave living conditions so that an adequate labor force could be worked efficiently. The economics of slave breeding and the sporadic humanitarian activities of medical, educational and evangelical missionaries became enmeshed in a maze of complexity at Codrington. It appears to this reviewer that slave "breeding" is an expression used rather freely (possibly too freely and singularly) to account for the population increase after 1792. Codrington was clearly ahead of other plantations when it came time to free the slaves and move into a free labor system. The Society's schools for the slaves, anemic

as they were, were tiny lightposts in the darkness of the West Indies at that time. All in all, one can scarcely argue with the author's conclusion that the explanation of bettered conditions for the slaves can be found in both the Society's humanitarianism and the economics necessary to maintain 300 laborers.

This excellent and much needed case study of plantation slavery is drawn from the wealth of source material in the Codrington papers. A series of fine translations offsets the loss of continuity usually existent in the topical chapter organization.

James C. Carey
Kansas State University

The Clays of Alabama: A Planter-Lawyer-Politician Family. By Ruth Ketring Nuermberger. (Lexington, University of Kentucky Press, 1958, vii, 342 pp., $7.50.)

The Clays of Alabama is a well-written and thoroughly documented study of a family prominent in state politics from the time of statehood until the Civil War era. The founder of the clan was Clement Comer Clay, a Virginian educated at Blount College in Knoxville, who established a law practice in Huntsville during the late territorial period. Clay, like many lawyers of the time and place, invested his legal earnings in land and slaves, but gave his heart to the game of politics. He was quite successful in his triple role of lawyer, planter and politician, especially the latter. From the state legislature Clay progressed to the United States Senate, serving as chief justice of the Alabama supreme court, congressman, and governor along the way. As a cotton planter, Clay accumulated nearly five thousand acres and 70 slaves during the 1820s and early 1830s. Before he could pay off the indebtedness on this property, however, the depression of 1837-1849 struck. His resulting financial difficulties drove Clay into a retirement from politics that was interrupted only by temporary state appointments undertaken for the salaries involved.

The other politically significant member of the family was Clement Claiborne Clay, the eldest of the founder's three sons. Young Clay graduated from the University of Virginia in law, and, following his father's example, joined a firm in Huntsville and entered politics. After a term in the legislature, he was elected to the United States senate in 1853, remaining a member of that body until Alabama left the Union. Clay then represented his state in the Confederate senate, where he was an ardent supporter of President Jefferson Davis. In 1863 he was defeated in a campaign for re-election because of his pro-Davis position. As a reward for his loyalty to the administration, Clay, in company with Jacob Thompson, was entrusted with a secret mission to Canada, the purpose of which was the organizing of an uprising in the Old Northwest against the Lincoln government. Neither Clay nor Thompson was qualified for such a task, and their efforts ended in utter failure. Clay returned to the Confederacy in time to witness its collapse, and he himself was arrested and imprisoned with President Davis in Fortress Monroe. When eventually released by order of President Andrew Johnson, Clay took no further part in Alabama affairs, devoting his time, instead, to a fruitless attempt to repair his war-shattered fortune.

To those interested in the agriculture of the Old South this book is disappointing, not because of the author's neglect of this subject, but because the Clays entrusted their plantations to overseers. None of them participated in the agricultural reform movement of the 1840s which almost revolutionized farming methods in the Lower South. Consequently, they were not able to profit from higher cotton prices during the 1850s to the extent that more efficient producers did. Indeed, Clay's chief source of income, during these prosperous years, was his salary as United States senator rather than cotton. Moreover, the family holdings were still heavily encumbered with debt at the beginning of the Civil War, a fact which speaks volumes about the farming ability of the Clays.

In the Clays' preoccupation with politics to the detriment of their economic well-being, we have, perhaps, an illustration of a fundamental weakness characteristic of Southern leadership during the critical pre-war years.

This study of an Alabama family by Mrs. Nuermberger demonstrates that the biograph-

ical approach to Southern history can be most rewarding. It is a useful contribution both to Alabama history in particular and to Southern history in general.

John Hebron Moore
University of Mississippi

Taxation of Agricultural Land in Underdeveloped Economies. By Haskell P. Wald. A Publication of the Harvard Law School International Program in Taxation. (Cambridge, Mass., Harvard University Press, 1959, xiii, 231 pp., $4.50.)

This thoroughly competent book is a model of how a program sponsored by a great law school tackles a large problem and presents its findings and recommendations. A first section examines in very general terms the systems of land taxation in force, their various bases of assessment, and the inflexible rate structure which is a common feature. An evaluation is then made of this sort of tax according to the public finance textbook standards of equity, ease of administration and economic policy. The book concludes with a judicious proposal for reform, for rationalizing the tax base and introducing flexibility into the tax structure. The net effect, it appears, would be to assimilate the land tax as closely as possible to an agricultural net income tax. A final chapter on "non-fiscal applications" of the tax is evidently considered by the author to be rather daring. "Because the principle of 'taxation for non-fiscal purposes' is often the target of sharp criticism, particularly in the United States," he writes, "it is necessary in introducing this subject to sound a note of caution." (page 210)

So impeccable an academic approach has drawbacks as well as merits. An economist will feel the lack of sharp analysis focussed on essentials of the development problem. It will not do, one feels, simply to polish up the classic canons codified in Seligman's 1910 textbook. Even in developed countries, public finance is a notoriously backward subject. The introduction of the textbook topics—equity, ease of collection, revenue yield and bits of static economic lore on tax shifting, price distortion, resource allocation—give the treatment a splendidly judicious tone, but obscure relevant points when they are made. For example, Mr. Wald writes as a final conclusion: "The goal sought is a tax that recognizes, within the limits of a country's administrative capabilities, individual differences in ability-to-pay, and that also serves, in combination with other taxes on agriculture, as an efficient instrument for mobilizing savings for capital formation." (page 207). Or again, speaking of his own proposed reform, "A flexible tax contributes to the goal of economic stability." (page 202). But "mobilizing savings" and "economic stability" are not the point. For rapid national development, a backward agriculture must be commercialized, improved, and in a sense exploited, and a tax on agriculture will be useful in a development program to the extent that it has those effects. In the end, despite many sensible points, Mr. Wald does not make clear to what extent the flexible and rationalized land tax he proposes would promote rapid development and to what extent it would involve a sacrifice of rapid development for an array of other goals. One wonders indeed what he, or Professor Seligman, would say of Bauer and Yamey's recent suggestion of a poll tax as a means to force peasants into commercial production.

A book of jurisprudent wisdom is not a book of history, and Mr. Wald's book is not a book for historians. From it they will learn nothing of the complex social and political setting surrounding land taxes and development aspirations in the poverty-ridden parts of the world. They will, with customary arrogance, observe here one more document in the long history of "culture contact" between the West, with its special brand of thinking, and the rest of the world. But culture contact makes strange bedfellows and economists may find that in helping make the rest of the world rich, they have themselves grown wise. The economic historian sometimes feels that the probabilities of these two occurrences are not greatly different.

William N. Parker
University of North Carolina

Great Basin Kingdom, An Economic History of the Latter-day Saints, 1830-1900. By Leonard J. Arrington. (*Studies in Eco-*

nomic History, Published in Co-operation with The Committee on Research in Economic History. Cambridge, Massachusetts, Harvard University Press, 1958, xix, 534 pp., $9.00.)

Leonard Arrington, Associate Professor of Economics at Utah State University, has presented a sympathetic account of the communal ideals and the co-operative approach with which the Latter-day Saints sought to achieve their Kingdom in the Great Basin. In his view Mormon religion is a social institution to be judged "according to its usefulness in attacking the ageless problems of humanity." For him, the best evidences of Joseph Smith's divine inspiration are to be found in "the essential social usefulness of the church throughout its history and the advanced theory of social action which Joseph Smith and his successors espoused during their lifetimes." From this standpoint some of the most praiseworthy, as well as the most objectionable, aspects of Mormon life were eliminated when a Supreme Court decision compelled the dissolution of the theocratic economy.

The volume is strictly limited by the definitions embodied in the sub-title. It is confined to history of the Mormons, with almost no discussion of Gentile life in the Basin region. It is a summary of economic struggle with very little reference to the religious concepts which set the Latter-day Saints apart from their fellow Americans. It is a chronological account presenting a repeated pattern of effort to attain self-sufficiency in the face of successive disasters. By the turn of the century, the author concludes, the Mormons had achieved two solid accomplishments: they had provided the basis of support for half a million people in an area long regarded as uninhabitable, and they had supplied the burgeoning communities of the Mountain West with "a veritable lifeline" of goods and services. That they had achieved so much he attributes to their "group tightening-of-the-belt, facilitated by strong organization and cohesive solidarity, and attended by timely windfalls. . . ."

Professor Arrington's background as an economist has contributed to especially interesting discussion of the Mormon trade and financial mechanisms. His sections on the efforts of the church leaders to finance purchase of capital equipment from the East, the use of tithing scrip and barter arrangements within the domestic sphere as a means to this end, the role of the Saints as provisioners and scavengers of the gold-rush migration, the organization of oxen trains to carry surplus supplies from the Basin east to provision their own westward migrants, and ultimately the closing of the market to non-Mormon transactions, the establishment of a theocratic monopoly—these are, to this reviewer, the most striking phases of the treatment presented.

Outstanding chapters tell of the Mormon reaction to the coming of the trans-Continental railroad—the mingled emotions involved in the renewing of the contact with "Babylon," the assumption of construction contracts as a church work, partly for the income thus to be derived, partly as a means of holding off the corrupting influence of Gentile construction gangs, and finally the heightening of religious dedication which culminated in a sort of theocratic "protectionism." During this period the perennial theme of self-sufficiency reached its peak, when reliance upon homemade articles, no longer a matter of sheer necessity, became a measure of religious observance. Trade might come to the Saints, but they desired little part in it. Such commercial connection as was essential was now assigned to the church-identified co-operative wholesale house and the related co-operative retail outlets. Through this pattern of economic exclusiveness the theocracy emerged in triumph from its "year of decision," 1869.

Few Americans outside the Basin today know the degradation inflicted upon the Mormons by Federal troop invasion, polygamy raiding, and confiscation of church property. The Saints who had successfully forestalled the colonial status normally associated with a frontier economy ultimately surrendered to the combined forces of governmental interdiction. Professor Arrington reiterates with more vehemence than his factual data warrant the point that national hostility to Mormons was generated less by considering of their peculiar religious and social views than by opposition to their closed economy in a day when *laissez faire* was the

predominant American economic pattern. This interpretation is significant and merits detailed development.

The chronological organization of the volume contributes to some repetitiveness in topical treatment and to a lack of depth in the accounts of individual industrial ventures, land use and distribution patterns, and, particularly, agricultural activity. The author speaks of the Basin Kingdom as "a predominantly agrarian society" (page 346); he frequently cites the diasastrous consequences of grasshopper devastation and the importance of co-operation in irrigation development; he refers to the Mormon role as supplier to Western mining communities—but these generalities virtually encompass his treatment of the agricultural economy. The exceptions are a reference to the initial failure of sheep-raising because of wolf depredations and some attention to sugar and cotton production as aspects of industrial development based on those crops. Historians who have looked on the Mormons as pioneers in evolving techniques of irrigated and dry-land agriculture (the latter is not mentioned) will be disappointed in this account.

We must, nevertheless, be grateful for the synthesis of data on Mormon economic enterprise, a kind of information which has heretofore been scattered in periodical literature (much of it by Dr. Arrington himself) or buried in voluminous diaries, newspaper reports, travel accounts, and church archives—his primary sources. With the peculiarities of theocratic monopoly thus defined, we can relate them to the more generalized responses to the regional environment.

Mary W. M. Hargreaves
University of Kentucky

The Agrarian Origins of Modern Japan. By Thomas C. Smith (Stanford, California, Stanford University Press, 1959, xi, 250 pp., $5.00.)

Any person interested in Japanese history and especially in the origins of modern Japan cannot afford to ignore this book. Relying in part on his own examination of unpublished source material and even more heavily on the researches of distinguished Japanese scholars, who since World War II have devoted themselves to the collection and study of widely scattered manuscript materials of the Tokugawa period (1600-1868), Professor Smith outlines the history of Japanese agrarian society as it existed at the beginning of the 17th century and the disruptive changes in it which contributed unmistakably to the emergence of modern Japan.

The volume is logically divided into two parts: The Traditional Village and The Village in Transition. Part I, embracing a little less than one-third of the total chapter space is, as its title implies, concerned primarily with the principal features of the Japanese agrarian village in which the overwhelming majority of the people of Japan lived in 1600. The structure of the Japanese family, the land systems, labor supply, social status and the organization of political power within the village are the principal items stressed. Although tne villages differed somewhat in the number of farming units, population, size of land holdings, work force, and production yields, they were, as the author indicates, very similar in most respects. Thus, in every village two systems of land holding generally prevailed: a few large holdings and a great many small holdings. The two differed not only in size but in the source of supply and organization of the labor required to farm them. This subject Professor Smith discusses in considerable detail and with clarity. He points out that irrespective of region small holdings were worked by the family. So were many of the large holdings but some particularly, those located in the vicinity of thriving urban centers, became commercial farms and as such had recourse to tenant cultivation. Aside from the family, the other sources of farm labor, the author notes, were the agricultural servants group composed of hereditary servants *(fudai)* who were persons together with their children passed down in a family from generation to generation and indentured servants bound for exceedingly long terms ranging from ten years to life. Together these servants were known as *genin* to distinguish them from servants of shorter term who were comparable in some respects to hired hands on an American farm of the mid-19th century. It is estimated that the *genin* accounted for about 10 percent of the peasant population

of the 17th century and were confined mainly to large holdings where the supply of labor was short. Finally, in connection with labor supply, Professor Smith gives considerable attention to the *nago* group, composed of those who held small plots of land and a dwelling from holders to whom they owed labor services in return. Though long regarded as subordinate to the large holders their social and economic status after 1650 increasingly became that of a land holder.

Professor Smith concludes Part I by addressing himself to the subject of the organization of political power. Here again the family groups, each organized on hierarchal lines, were the key to the village political structure as well as to social, ceremonial and often economic status of each person within its confines. It is not surprising that political power was concentrated in the heads of the older or main families. Village offices, for example, were filled almost entirely by heads of prominent families. Indeed, in most traditional villages the role of headman was hereditary and the office was handed down from father to son. The fact that it was of utmost importance to the headman that he have public opinion on his side virtually compelled him to seek the general will, to be skilled in compromising differences, and to be virtuous and just rather than dictatorial.

In the 10 chapters comprising Part II, Professor Smith discusses the changes that transformed the agrarian pattern outlined in Part I with emphasis on the reasons for change and the consequences thereof. Rapid growth in urban population and an expanding market for food and other agricultural commodities were, he points out, the basic items that account for the revolutionary transformation of Japan from a land composed primarily of subsistence village peasants into one in which specialized commercial farming was increasingly to predominate. No one can read these highly informing and extremely interesting chapters without realizing that this transformation which contributed so fundamentally to the transition of Japan from a feudal to a dynamic industrial society was in the nature of a chain reaction: growing population meant an expanding market which in turn stimulated ways and means of increasing productivity; hence greater demand for an adequate labor supply, the advancement of agricultural technology and an adequate labor supply, the advancement of agricultural technology and the quest for capital which commercial farming entails.

No less important than the economic changes wrought by the transformation of the agricultural pattern were those in social and political aspects of Japanese rural life. Nowhere in the English language will one find a more scholarly and interesting account of these changes than in these pages. The last chapter, "Agrarian Change and Modern Japan," admirably supports the title of the book. Even more it is evidence of the author's broad and deep acquaintance with many facets of Japanese history, past and present. His grasp of factual information and his power to interpret wisely the meaning thereof—not only this chapter but throughout the entire book entitle him to high rank as an historian.

Harry J. Carman
Columbia University

The Royal General Farms in Eighteenth-Century France. By GEORGE T. MATTHEWS. (New York, Columbia University Press, 1958, xii, 318 pp., $5.50.)

In a somewhat modest preface, the author of this admirable monograph on French financial history before the French Revolution deplores the fact that "At best the subject of antiquated taxes and fiscal mechanisms is crabbed and unlovely." But his little book—an all-inclusive study of the development, administration, relative economic efficiency, and ultimate dissolution of the French General Farms—is highly readable, seasoned with delightful anecdotes and humorous incidents, and supported by clear, informative footnotes which make complicated fiscal and legal technicalities lucid to the layman.

Detailed chapters on the separate "farms" or sources of tax revenue—salt and tobacco monopolies, sales taxes, town duties, and registry taxes—present the familiar story of French seventeenth and eighteenth century history in a refreshing light. The powerful and important Company of General Farmers touched every aspect of French life from 1681,

the date of the Company's consolidation under Colbert, until its complete dismantlement by the National Constituent Assembly in 1791. Professor Matthews introduces us to the peasant who, forced to buy a minimum of salt under the hated system of the *gabelle* (salt tax), could not legally avail himself of the salt licks on his own land. But at the same time he discusses the important jurisdictional disputes between the big quasiprivate monopoly and the provincial *parlements* of Brittany and of the other provinces of France exempt from some or all of the various individual taxes.

History has dealt hard with the Farmers General—as tradition insists upon calling the most important of the tax farmers of monarchical France. Contemporaries, such as the high-minded jurist Malesherbes, subjected them to the severest criticism. To Henri Carré, Cardinal Fleury was responsible for a serious abuse when he restored the Company of General Farms through the Carlier lease in 1726. Among historians of the great Revolution, Taine is only the most famous of their detractors. Economic historians have had little sympathy for them. If Marcell Marion warns that their bad reputation is not justified for the last half of the eighteenth century, Henri Sée is unstinting in his criticism of them right down to the *cahiers* of 1789. An American historian, writing of the tobacco contract negotiated between Robert Morris and the French Farmers General in 1786, characterizes them as "rapacious parasites."

Compared to this almost unbroken record of censure and disapprobation, Professor Matthews' careful analysis of revenue farming in the *ancien régime* reads like sober business history. At times one gets the impression that this syndicate of financiers, who gradually became expert at the odious but indispensable chore of collecting the major part of the taxes for the French treasury (in fact, all the indirect taxes), were not much different from William Patterson and the early private bankers of London who performed a public service in founding and fostering the Bank of England. The author has spent many hours in the company of the chemist-financier Antoine Lavoisier, with three generations of the Delahante family, with the philosopher-financier Helvétius, the Parsevals, the de Cazes, and others of the closely-connected clique which came to dominate this loose "joint-stock company." It is not unnatural that he should seem to be prejudiced in their favor, and more than fair to their legitimate economic function as financial middleman who provided a chief source of credit for the improvident monarchy.

Professor Matthews does not stress the corruption and extravagance that marked this bad system of tax collection (Until Turgot's ministry, 1774-1776, every royal controller-general received an annual *pourboire* of at least 50,000 livres from the Company of General Farmers!), but his thoroughgoing examination of this "most characteristic institution of the old regime"—written with detachment of a medical autopsy—adds up to a serious indictment. The system of *croupes* and *pensions* (shares and sleeping partnerships), so notoriously evident in the corrupt court of Louis XV, merely reflected the nepotism, favoritism, and patronage to which the 40 to 60 partners of this important "consortium" were always vulnerable, in every decade of their company's history.

By the time of the new reign, 1774, it was too late for reform; ". . . the government was inextricably caught in the net of debt that bound it to the Company of General Farmers." The energetic reform ministers were doomed to accept tax farming, because the royal treasury was never able to repay the advances of the financiers when they became due. The author's careful analysis, as an economist, of the mechanics of General Farms operations—of "an archaic financial enterprise which lived only because the monarchy could not afford to let it die"—is one of the best sections of a fine book.

French as well as American scholars should find much of value in a monograph written with such painstaking care and with such discriminating choice of illuminating detail. The general reader will enjoy a delightful review of French economic history from the reign of Henri IV to the epoch of the Revolution. *The Royal General Farms in Eighteenth Century France* would make a good supplementary guide to Esmein's *Cours élémentaire d'histoire du droit francais,* or to any other standard treatise on French law and political administration in the *ancien régime.*

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